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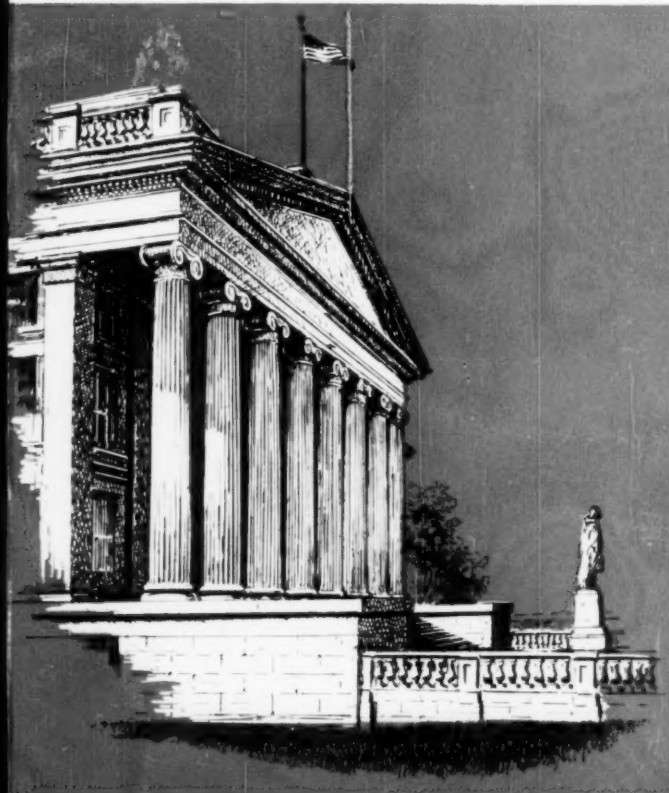

Articles on

- Trends in Monetary Theory and Policy
- Banks and Equipment Leasing
- Loan Loss Reserves
- Terms on Home Improvement Loans
- Debt Management and Monetary Policy
- Canadian Monetary and Exchange Policy

- Announcement Effects of Discount Policy
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The NATIONAL BANKING REVIEW

A JOURNAL OF POLICY AND PRACTICE

VOLUME 2, NUMBER 1, SEPTEMBER 1964

Edited by the Senior Staff of the Department of Banking and Economic Research, Office of the Comptroller of the Currency.

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► MILTON FRIEDMAN

Post War Trends in Monetary Theory and Policy

The post war period has seen a dramatic change in the views of academic students of economics about monetary theory and of governmental officials about monetary policy. At the end of the war most professional economists and most governmental officials concerned with economic policy took it for granted that money did not matter, that it was a subject of minor importance. Since then there has been something of a counter-revolution in both theory and policy.

In theory, the direction of change has been toward the earlier attitudes associated with the quantity theory of money, but with a different emphasis, derived from the Keynesian analysis, on the role of money as an asset rather than as a medium of exchange. In the field of policy, the direction of change has been away from what we might call "credit policy," i.e., policy which emphasizes rates of interest and availability of credit, and toward monetary policy, i.e., policy which is concerned with the quantity of money. The emphasis has been away from qualitative controls and toward quantitative controls. And, finally, in the field of policy there has been renewed attention to the problem of relating internal stability to external stability. In examining these changes I shall outline briefly what the situation was at the end of the war; I shall then discuss in more detail the changes in theory that I have just sketched, and finally analyze the changes in policy.

Milton Friedman is Paul S. Russell Distinguished Service Professor of Economics at the University of Chicago.
This paper is adapted from a talk given in Athens in January 1963, under the auspices of the Center for Economic Research.

I. *The Postwar Situation*

Economic thought at the end of the war was greatly affected by the Keynesian revolution which occurred in the 1930's. Keynes himself was much less extreme in rejecting the importance of money than were some of his later disciples. Keynes stressed the particular problem of under-employment equilibrium. He argued that under such circumstances one might run into something he called absolute liquidity preference. His analysis concentrated on the relation between money, on the one hand, and bonds or other fixed interest securities, on the other. He argued that bonds were the closest substitute for money, and that in the first instance one could regard people as choosing between holding their wealth in the form of money or holding it in the form of bonds. The cost of holding wealth in the form of money was the interest that could otherwise be received on bonds. The higher the rate of interest, the less money people would want to hold and vice versa. But, Keynes said, there exists some rate of interest so low that if the rate were forced still lower nobody would hold any bonds.

At that interest rate, liquidity preference is absolute. At that rate of interest, if more money were introduced into the economy people would try to get rid of the money by buying bonds. This, however, would tend to lower the rate of interest. But even the slightest decline in the rate of interest would lead people to hold money instead. So, said Keynes, under such circumstances, with the interest rate so low that people were indifferent whether they held money or bonds, no matter what quantity of the one they held or what quantity of the other, changes in the stock of money would have no effect on anything. If the quantity of money were increased by buying bonds, for example, the only effect would be that people would substitute money for bonds. If the quantity of money were decreased by selling bonds, then the opposite effect would occur.

Keynes did not of course deny the validity of the famous quantity equation, $MV = PT$. That is an identity which is a question of arithmetic not of theory. What he said, in effect, was that in conditions of under-employment, V (velocity) is a very unstable, passive magnitude. If M (quantity of money) increases, V will go down and the product will not change. If M decreases, V will go up and the product will not change. I emphasize this point in order to make clear that the question at issue is an empirical question and not a theoretical question. There was never any dispute on a purely theoretical level in this respect between Keynes and the quantity theorists.

Keynes himself felt that such a position of unstable velocity would occur only under conditions of under-employment equilibrium. He said that under conditions of inflation the quantity theory comes into its own. But some of his disciples went much farther. They argued that even under conditions less extreme than those of absolute liquidity preference, changes in the stock of money would not have any significant effect. It is true, they said, that under such circumstances changes in the stock of money would lead to changes in interest rates. But, changes in interest rates, they argued, would have little effect on real flows of spending: the amount of money people want to invest in projects is determined by considerations other than the rate of the interest they have to pay; in technical language, the demand for investment is highly inelastic with respect to the interest rate. And consequently, they argued that, even under conditions of full employment or of inflation, changes in the quantity of money are of minor importance. An increase in M would tend to lower the interest rate a little, but this in turn would have very slight effect in expanding investment.

And hence, they argued, one would find again that V of the MV equation fluctuated widely, tending to offset changes in M.

The general presumption among most economists at the end of the war was that the postwar problem was going to be depression and unemployment. The problem was going to be to stimulate sufficient investment and sufficient consumption to prevent substantial unemployment. The appropriate monetary policy in their view was very simple. The monetary authorities should keep money plentiful so as to keep interest rates low. Of course, interest rates according to this view did not make much difference, but insofar as they had any effect it would be in the direction of expanding investment slightly and hence contributing to the investment that would be urgently needed to offset deficiencies of demand. Nearly two decades have elapsed since then, and it is hard now to remember how widespread these views were and how strongly they were held by people in responsible positions, as well as by economists in general. For example, in 1945, E. A. Goldenweiser who at the time was the Director of Research of the Federal Reserve Board's Division of Research and Statistics wrote:

> This country will have to adjust itself to a 2½ per cent interest rate as the return on safe, long-time money, because the time has come when returns on pioneering capital can no longer be unlimited as they were in the past.[1]

This whole approach was shattered by the brute evidence of experience. In the first place, and most important, the problem of the postwar world turned out to be inflation and not deflation. Country after country which adopted an easy money policy because of the views I just described discovered that it was faced with rising prices. Equally important, no country succeeded in stopping inflation without taking measures which had the effect of controlling the quantity of money. Italy stopped inflation in 1947. How? By measures designed to hold down the quantity of money. The experience was repeated in Germany after the monetary reform in 1948; in the U.S., after the Federal Reserve-Treasury Accord in 1951; in Britain, when it restored orthodox monetary policy in 1951 to keep prices down; in Greece; and in France, a recent (1960) addition to the list. Those countries which continued to follow low interest rate policies or continued to increase the quantity of money rapidly, continued to suffer inflation, whatever other measures they took.

Though this experience was in many ways the most important single factor that produced a radical change in attitudes toward money, it was reinforced by several other factors. One was the developments which were proceeding in the world of economic theory in the analysis and re-examination of the body of doctrine which had emerged out of the Keynesian revolution. The most important element here was the emphasis on the role of real cash balances in affecting flows of expenditures, first pointed out by Haberler and then by Pigou in several articles which received more attention. An essential element of the Keynesian approach has been the view that only substitution between money and bonds is important, that real goods or real expenditures are not an important substitute for cash balances, and that when cash balances are larger than people desire to hold, they alter solely their desired holdings of other securities. The intellectual importance of the forces brought to the fore by Haberler and Pigou was the emphasis they placed on the possibility of substitution between cash on the one hand and real flows of expenditures on the other. This contributed to a re-emphasis on the role of money.

[1] "Postwar Problems and Policies," *Federal Reserve Bulletin*, February 1945, p. 117.

Another development that had the same effect, in a negative way, was the disillusionment with fiscal policy. The counterpart of the Keynesian disregard for money was the emphasis placed on fiscal policy as the key element in controlling the level of aggregate demand. In the U.S. in particular, governmental expenditures have proved to be the most unstable element in the economy in the postwar years, and they have been unstable in a way that has tended to increase fluctuations rather than to decrease them. It has proved to be extremely hard to change expenditures and receipts in advance in such a way as to offset other forces making for fluctuations. This led to re-emphasis on monetary policy as a more flexible instrument which could be used in a sensitive way.

II. *Developments in Monetary Theory*

Let me turn now to the developments in monetary theory that have followed this postwar experience and the re-emphasis on money as an important economic magnitude. One development has been that many economists who continue to use the Keynesian apparatus have revised their empirical presumptions. These economists now say that liquidity preference is seldom absolute, that there is some elasticity in the demand for cash balances, and that if there are changes in the stock of money there will be changes in interest rates. They say also that investment is not completely insensitive to interest rates, that when borrowing becomes more expensive, the amount spent on investment is reduced, and conversely. This view goes along with the attitude that, while money is more important than these economists used to think it was, monetary policy still can influence income only indirectly. A change in the stock of money may affect the interest rate, the interest rate may affect investment, the change in investment may affect income, but it is only by this indirect route, the argument runs, that monetary changes have an effect on economic change.

This is purely a semantic question of how one wants to describe the channels of influence. The crucial issue is the empirical one of whether in fact the links between money and income are more stable and more regular than the links between investment and income. And it is on this empirical issue that the postwar evidence spoke very strongly and led to a re-examination of the role of money.

A more fundamental and more basic development in monetary theory has been the reformulation of the quantity theory of money in a way much influenced by the Keynesian liquidity preference analysis. That analysis emphasizes money as an asset that can be compared with other assets; its emphasis is on what is called "portfolio analysis," analysis of the structure of peoples' balance sheets, of the kinds of assets they want to hold. This emphasis looks at monetary theory as part of capital theory, or the theory of wealth. This is a rather different emphasis than that derived from earlier approaches, particularly that of Irving Fisher, which put major emphasis on transactions and on money as a mechanical medium of exchange somehow connected with the transactions process.

The emphasis on money as an asset has gone in two different directions. On the one hand, it has led to emphasis on *near moneys*, as an alternative source of liquidity. One example is the work of Gurley and Shaw and their analysis of financial intermediaries as providing money substitutes. Another example, in its most extreme form, is in the Radcliffe Committee report which attempts to widen the concept of money to make it synonymous with the concept of liquidity, itself an undefined term which covers the universe. My own view is that this particular trail toward widening the range of

reference of the concept of money is a false trail. It will peter out and will not in fact be followed. The reaction which the Radcliffe Committee analysis has received among academic economists and others seems to suggest that my opinion is widely shared.

The other direction in which the emphasis on money as an asset has led is toward the development of a theory of the demand for money along the same lines as the theory of the demand for other assets and for commodities and services. In such a theory, one asks what determines the amount of cash balances that people want to hold. Here it is essential to distinguish between cash balances in two senses: nominal cash balances, the nominal quantity of money as defined in terms of monetary units such as drachmas, dollars, and so forth; and real cash balances, the real stock of money as defined in terms of command over goods and services.

The essential feature of the quantity theory of money in both its older versions and its more recent and modern version is the assertion that what really matters to people is not the number of things called drachmas or dollars they hold but the real stock of money they have, the command which those pieces of paper give them over goods and services. In talking about the demand for money, one must ask what determines the command over goods and services that people want to keep in the form of money. For example, take a very simple definition of money as consisting only of currency, of the pieces of paper we carry in our pockets. We must then ask what determines whether the amount that people hold is on the average equal to a little over six weeks' income, as it is in Greece, or a little over four weeks' income, as it is in the U.S., or five weeks' income, as it is in Turkey. Thus, when we talk about the demand for money, we must be talking about the demand for real balances in the sense of command over goods and services, and not about nominal balances.

In the theory of demand as it has been developed, the key variables include *first*, wealth or some counterpart of wealth, for example, income or, preferably, something like permanent income which is a better index of wealth than measured income. Because the problem is one of a balance sheet, the first restriction is that there is a certain total amount of wealth which must be held in the form of money, or bonds, or other securities, or houses, or automobiles, or other physical goods, or in the form of human earning capacity. Hence, income or wealth acts as a restraint in determining the demand for money in exactly the same way that the total income people have operates to determine their demand for shoes or hats or coats by setting a limit to aggregate expenditures. The *second* set of variables that is important is the rates of return on substitute forms of holding money. Here, the most important thing that has happened has been a tendency to move away from the division of assets into money and bonds that Keynes emphasized, into a more pluralistic division of wealth, not only into bonds but also into equities and real assets. The relevant variables therefore are the expected rate of return on bonds, the expected rate of return on equities and the expected rate of return on real property, and each of these may of course be multiplied by considering different specific assets of each type. A major component of the expected rate of return on real property is the rate of change in prices. It is of primary importance when there is extensive inflation or deflation.

I should like to stress the significance of the emphasis on money as one among many assets, not only for the kinds of variables that people consider as affecting the demand for money, but also for the process of adjustment. According to the earlier view of money as primarily a

medium of exchange, as something which is used to facilitate transactions between people, it was fairly natural to think of a short link between changes in the stock of money and changes in expenditure and to think of the effects of changes in the stock of money as occurring very promptly. On the other hand, according to the more recent emphasis, money is something more basic than a medium of transactions; it is something which enables people to separate the act of purchase from the act of sale. From this point of view, the role of money is to serve as a temporary abode of purchasing power. It is this view that is fostered by considering money as an asset or as part of wealth.

Looked at in this way, it is plausible that there will be a more indirect and complicated process of adjustment to a change in the stock of money than looked at the other way. Moreover, it seems plausible that it will take a much longer time for the adjustment to be completed. Suppose there is a change in the stock of money. This is a change in the balance sheet. It takes time for people to readjust their balance sheets. The first thing people will do is to try to purchase other assets. As they make these purchases, they change the prices of those assets. As they change the prices of those assets, there is a tendency for the effect to spread further. The ripples spread out as they do on a lake. But as prices of assets change, the *relative* price of assets, on the one hand, and flows, on the other hand, also change. And now people may adjust their portfolios not only by exchanging assets but by using current income to add to, or current expenditures to subtract from, certain of their assets and liabilities. In consequence, I think that this reformulation of monetary theory with its emphasis on monetary theory as a branch of the theory of wealth has very important imlications for the process of adjustment and for the problem of time lags.

III. *Developments in Monetary Policy*

Policy does not always have a close relation to theory. The world of the academic halls and the world of policy makers often seem to move on two wholly different levels with little contact between them. The developments in postwar monetary policy have not been the same throughout the world. However, the makers of monetary policy in different countries have been in closer and more systematic touch with one another than the monetary theorists. As a result, I think one can speak to some extent of general trends in policy without necessarily referring to the country.

As I indicated earlier, I think two features dominate and characterize the trends in postwar monetary policy. The first is the shift of emphasis away from credit policy and toward monetary policy. I think this is a distinction of first rate importance, and yet one which is much neglected. Therefore let me say a word about the meaning of this distinction. When I refer to credit policy, I mean the effect of the actions of monetary authorities on rates of interest, terms of lending, the ease with which people can borrow, and conditions in the credit markets. When I refer to monetary policy, I mean the effect of the actions of monetary authorities on the stock of money—on the number of pieces of paper in people's pockets, or the quantity of deposits on the books of banks.

Policy makers, and central bankers in particular, have for centuries concentrated on credit policy and paid little attention to monetary policy. The Keynesian analysis, emphasizing interest rates as opposed to the stock of money, is only the latest rationalization of that concentration. The most important earlier rationalization was the so-called real bills doctrine. The belief is still common among central bankers today that, if credit were somehow issued in relation

to productive business activities, then the quantity of money could be left to itself. This notion of the real bills doctrine goes back hundreds of years; it is endemic with central bankers today. It understandably derives from their close connection with commercial banking, but it is basically fallacious.

The emphasis on credit policy was closely linked with the emphasis at the end of the war on qualitative controls. If what matters is who borrows and at what rate, then it is quite natural to be concerned with controlling the specific use of credit and the specific application of it. In the U.S., for example, emphasis on credit policy was linked with emphasis on margin controls on the stock market, and with controls over real estate credit and installment credit. In Britain, it was linked with controls over hire purchase credit. In each of these cases, there was a qualitative policy concerned with credit conditions. The failure of the easy money policy and of these techniques of qualitative control promoted a shift both toward less emphasis on controlling specific rates of return and toward more emphasis on controlling the total quantity of money.

The distinction that I am making between credit and monetary policy may seem like a purely academic one of no great practical importance. Nothing could be farther from the truth. Let me cite the most striking example that I know; namely, U. S. experience in the great depression from 1929 to 1933. Throughout that period the Federal Reserve System was never concerned with the quantity of money. It did not in fact publish monthly figures of the quantity of money until the 1940's. Indeed, the first mention in Federal Reserve literature of the quantity of money as a criterion of policy was in the 1950's. Prior to that time there was much emphasis upon easy or tight money, by which was meant low or high interest rates. There was much emphasis on the availability of loans, but there was no emphasis and no concern with the quantity of money.

If there had been concern with the quantity of money *as such*, we could not have had the great depression of 1929-33 in the form in which we had it. If the Federal Reserve System had been concerned with monetary policy in the sense in which I have just defined it, it literally would have been impossible for the System to have allowed the quantity of money in the U.S. to decline from 1929 to 1933 by a third, the largest decline in the history of the U.S. in that length of time. In reading many of the internal papers of the Federal Reserve Board during that period, the communications between the various governors of the Federal Reserve Banks and the Board of Governors, and so forth, I have been struck with the lack of any quantitative criterion of policy. There are vague expressions about letting the market forces operate. There are comments about "easy" money or "tight" money but no indication of precisely how a determination is to be made whether money is "easy" or "tight." This distinction between emphasis on credit policy and emphasis on monetary policy is a distinction of great importance in the monetary history of the U.S., and I think also in the monetary history of other countries.

The failure of the easy money policy was reinforced by another factor which promoted a shift in policy away from qualitative measures involving control of particular forms of credit, and toward quantitative measures involving concern with changes in the stock of money. This other factor was a reduction of exchange controls and quantitative restrictions on international trade, as in the postwar period one country after another began to improve its international position. There was a move toward convertibility in international payments. This shift toward convertibility led to a reduction of emphasis on qualitative direct controls

and toward increased emphasis on general measures that would affect the course of events through altering the conditions under which people engaged in trade. In turn, this led to a final development in monetary policy—the renewed concern about the relation between internal monetary policy and external policy, the problem of the balance of payments. In this area we have had, most surprisingly of all I think, a return to an earlier era of something approximating a gold standard.

In the immediate postwar period, concern with the balance of payments tended to be centered in the countries of Western Europe that were having a so-called dollar shortage. Those countries were at that time facing the problem of recurrent drains of their international reserves. They were in the position of having somehow to restrain their residents from converting their local currencies into foreign currencies. Those were also the countries that emerged from the war with fairly extensive exchange controls and direct restrictions on trade. And thus in the first years after the war the solution to this problem took the form of direct control rather than of monetary policy.

At that time the U.S. was in a very different position. It was gaining gold and it was able to take the position that it could conduct its monetary policy entirely in terms of internal conditions and need pay no attention to the effects that its policies had abroad. Of course, that was not what happened. There is little doubt that during the immediate postwar period the ease in the U.S. gold position contributed toward a greater readiness to accept inflation than would otherwise have prevailed, so that the ease in the international balance produced a relatively easier monetary policy than we otherwise would have had. But once the U.S. started selling gold on net instead of buying gold on net, to use a more accurate term than the term "losing gold," the situation changed drastically and the U.S. itself became much more concerned with the effect of monetary policy and much more driven toward a pre-World War I gold standard approach.

In recent years, the concern with the international balance of payments has given rise to greater co-operation among central banks. They have tried to develop techniques which will assure that any temporary drains on the reserves of one country will be matched by offsetting movements by central banks in the other countries. Despite the immense amount of good will and of human ingenuity that has gone into this effort to avoid payments difficulties through central bank co-operation, I must confess that I regard the tendency as an exceedingly dangerous one. The danger is that the arrangements developed will provide an effective system for smoothing minor difficulties but only at the cost of permitting them to develop into major ones.

I am much struck by the analogy between what is now happening in this respect and what happened in the U.S. between 1919 and 1939. The U.S. in that earlier period developed a monetary system which turned out to be an effective device for smoothing minor difficulties. The system was highly successful in helping to make the years from 1922 to 1929 relatively stable. But this stability was purchased at the cost of major difficulties from 1920 to 1921, from 1929 to 1933, and again from 1937 to 1938. I very much fear that the same results may emerge from present trends toward international co-operation among central banks, because these measures do not go to the root of the problem of international adjustment.

In international financial arrangements, as in personal finances, the problem of having enough liquid assets to meet temporary drains must be sharply distinguished from the adjustment to changed circumstances. The central bank arrange-

ments look only to providing liquidity for temporary drains. More fundamental adjustment to changed circumstances can come only through either: (1) domestic monetary and fiscal policy directed toward holding down or reducing domestic prices relative to foreign prices when the country is experiencing a deficit, or toward permitting domestic prices to rise relative to foreign prices when the country is experiencing a surplus; (2) changes in exchange rates to achieve a similar alteration in the relative level of domestic and foreign prices when expressed in the same currency; or (3) direct measures designed to alter the flows of receipts or expenditures, such as changes in tariffs, subsidies, and quotas, direct or indirect control of capital movements, restrictions on foreign aid or other governmental expenditures, extending ultimately to that full panoply of foreign exchange controls that strangled Western Europe after the war and remains today one of our most unfortunate gifts to many underdeveloped countries.

The great danger is that central bank co-operation and other means to enlarge liquidity, by providing palliatives that can at best smooth over temporary imbalances, will encourage countries to postpone undertaking such fundamental adjustments to changed circumstances. The consequence will be to allow minor imbalances to accumulate into major ones; to convert situations that could have been corrected by gradual and minor monetary tightness or ease, or by small movements in exchange rates, into situations that would require major changes in monetary policy or exchange rates. The consequence is likely to be not only international financial crises, but also the encouragement of the use of the third method of adjustment, direct controls. Paradoxically, most economists and most policy makers would agree that it is the worst of the three; yet it is the one that has most regularly been resorted to in the postwar period.

These developments in monetary policy are much more difficult to pin down precisely than the developments in monetary theory, as may be expected from the fact that monetary policy is and must be much more a matter of opportunism, of day-to-day adjustment, of meeting the particular problems of the time. The theorist can sit in his ivory tower and made sure that his structure is coherent and consistent. This is, I must say, an advantage of the theorist and a great disadvantage of the policy maker, and not the other way around. But I think it is clear that we are likely to see in the future still further developments in monetary policy.

There is almost invariably a long cultural lag before developments in theory manifest themselves in policy. If you were to look at what is being proposed today in domestic policy in the U.S., you would say that my analysis of changes in the field of monetary theory must be a figment of my imagination. The policy proposals that are being made in the U.S. today are all reflections of the ideas of the late 1930's, or at the latest of the early 1940's. That is natural and widespread. The people who make policy, who are involved in policy formation, are inevitably people who got their training and their education and their attitudes some 20 or more years earlier. This is a special case of a much more general phenomenon. I am sure all are aware of that famous book by A. V. Dicey on *Law and Public Opinion in the 19th Century*, the main thesis of which is precisely that trends in ideas take about 20 years before they are effective in the world of action. What is happening in the U.S. today is a dramatic illustration of his thesis. And so I expect that monetary policy will in the course of the next 20 years show some radical changes as a result of the changes I have described in monetary theory.

► EUGENE F. BRIGHAM

This article presents the experience of bankers, leasing companies, and those who use leasing services, as well as an analysis of the economic and legal issues in lease financing.

The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry

In March 1963, Comptroller Saxon ruled that national banks could own and lease personal property, and since that time a number of state banking supervisors have also granted permission to the banks under their jurisdictions to engage in direct equipment leasing.[1] Thus far the banking industry's response to these permissive rulings has been less than dramatic, but interest is building and both bankers and others familiar with the situation expect that before too much

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This paper is the outgrowth of a series of conferences conducted by members of the finance department at UCLA's Graduate School of Business Administration for several of the larger banks in California. During these conferences the ideas presented herein were thoroughly discussed with officers representing all departments of the banks, and an earlier draft of the paper was sent to the bankers themselves, the officers of a number of leasing companies, and the financial officers of several corporations that are using lease financing. While it would not be accurate to say that the conclusions reflect a consensus of opinions, the ideas do reflect the thinking of a substantial majority of the bank conference participants and the lessee and leasing company officers that reviewed the preliminary draft.

The author is grateful to the bankers, the corporate lessees, the leasing company officers, and to other UCLA faculty members—particularly J. Fred Weston, H. Robert Bartell, and R. Bruce Ricks—for many helpful comments and criticisms both during and after the conferences.

[1] The state rulings that we have seen restrict bank activities to *financial leases on personal property*. A financial lease is defined as one that (1) permits the lessor to recover the full cost of the equipment plus a reasonable rate of interest during the life of the lease, (2) is noncancellable except with full payment of the lessor's unamortized costs, and (3) the lessee pays all taxes, insurance, maintenance, et cetera on the equipment. This is distinguished from an operating lease, which is cancellable, includes maintenance, and so forth. Saxon's ruling, on the other hand, does not impose such specific limitations on bank activities, but leaves to the discretion of the bank the initial decision concerning the form of the lease.

longer banks will be a serious factor in direct leasing.[2]

An appraisal of the impact of bank entry on the leasing industry requires that two questions be examined: given banks' opportunity costs, are net returns in the leasing industry likely to be sufficiently high to attract large-scale bank entry; and will this entry, should it occur, seriously alter market conditions in the leasing industry? First—partly as background material and partly as a basis upon which to formulate judgments about the future volume of leasing business that can be expected—the leasing industry itself is discussed. Following this, the factors that determine the profitability of various credit instruments, and ways of analyzing the relative profitability of these different instruments, are considered with special reference to the lease contract. Finally, these two sections are drawn together to form conclusions about the likelihood of bank entry and about the impact of this entry on industry market conditions.

I. *The Equipment Leasing Industry*

During the past decade or so equipment lease financing has grown quite rapidly. Good statistics do not exist to document this growth, but estimates place the compound rate of increase of financial leases outstanding (as opposed to operating leases) at about 30-percent per annum during the 1950's and at about 15-percent per annum thus far in the 1960's.[3] Why has the industry expanded so rapidly, and can we expect this growth to continue? These questions are studied in this section in terms of the reasons behind the demand for leasing and the supply of funds to the leasing industry.

A. The Demand for Financial Leases

The demand for lease financing is derived from the demand for credit to acquire fixed assets. As will be shown below, the implicit interest rate[4] built into a lease contract is generally quite a bit higher than the interest rate that would be charged on a term loan, should the lessee have borrowed rather than leased. Given this fact, why should any rational firm choose to lease rather than borrow? On analysis, four principal reasons seem to lie behind this demand; each of these is considered below.[5]

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[2] As of September 30, 1963, national banks in 18 states had written leases in the amount of $5 million. By December 20, 1963, these figures had increased to 23 states and $24 million, of which $19 million was by California national banks. Source: The *National Banking Review*, December 1963 and March 1964, Statistical Table 1.

[3] These estimates were obtained from a *Wall Street Journal* article dated January 24, 1964, and from correspondence with Mr. Robert Sheridan, president of the Association of Equipment Lessors.

[4] The "implicit interest rate" associated with a lease contract is the interest factor used to compute the schedule of lease payments; conceptually, it is identical to the contract interest rate on a loan. For example, an amortized loan of $1,000 calling for 6-percent interest on the declining balance and level payments over a 5-year period would require a payment of $237.40 each year for five years. If a lease on equipment costing $1,000 called for payments of $237.40 per year for five years, then we would say that the lease carried an implied interest rate of 6-percent.

[5] In addition to the factors listed herein, see John H. Meyers, *The Reporting of Leases in Financial Statements*, Accounting Research Study 4, American Institute of Certified Public Accountants, 1962, Appendix B.

The reader should bear in mind that the discussion relates only to financial leases of personal property. The factors influencing the demand for financial leases on real property are similar to those given below, but real property is quite different from equipment and the leasing of such property involves unique problems not covered here. Operating leases are also demanded for some of the same reasons as are discussed here, but in addition, such leases are particularly useful to firms needing equipment for a period that is short in relation to the life of the asset.

1. *Rapid Amortization*

In its early days (the late 1940's and early 1950's), one of the most important stimuli to leasing was the fact that it could be used, in effect, to amortize long-lived assets over a relatively short period of time. For example, an asset might have a depreciable life of 15-years, and, if owned, it would have to be written off over this period. Under a lease, on the other hand, it was frequently possible to obtain a much more rapid write-off. Lease payments are deductible, so if the 15-year asset could be leased for a short period—say 3 to 5-years—then bought for a nominal amount (10-percent of cost was a typical value for the purchase option), the practical effect was a 3 to 5-year write-off.

Cash flow analysis will show that leasing can be profitable under circumstances such as those described above, even though the lease carries a relatively high implicit interest rate, and the early literature,[6] as well as the leasing company advertising of the times, was devoted largely to this point. During the early and middle 1950's, however, two events occurred which drastically reduced this advantage of leasing: (1) the 1954 Revenue Code permitted accelerated depreciation to be used for tax purposes; and (2) the Internal Revenue Service began to rule that leases such as the one described above are conditional sales contracts for tax purposes and that payments made under them are not deductible. The first of these two events increased the cash flows under the borrow-buy arrangement, and the second forced lessees into longer-term contracts with larger (or no) purchase options. The net result was that it became very difficult to make the old cash flow analysis show a legitimate lease to be preferable to the borrow-buy situation.

2. *Government Contracts*

A second factor that stimulated the early growth of leasing was the cost-allowability policy used on most government cost-plus-fee defense contracts. The general rule was to allow lease payments in total, but to disallow interest charges on borrowed funds and depreciation charges that were geared to the life of the contract, rather than to the life of the assets used under the contract. The net result was to make more costs allowable under leases than under many borrow-and-buy arrangements, and such a condition had the very natural effect of making lease financing attractive to government contractors.

Good statistics to document the fact are not available, but scattered evidence on individual leasing companies and discussions with knowledgable persons suggest that a substantial amount of the early growth of leasing could be attributable to defense contractors.[7] More recently, however, governmental auditors have been taking a realistic look at financial leases and have been disallowing many lease payments.[8] Some additional time will be required before the full impact of this changed attitude is felt by the leasing industry, but as of now it appears that another of leasing's advantages is phasing out.

[6] For example, see F. K. Griesinger's classic article, "Pros and Cons of Leasing Equipment," *Harvard Business Review*, March-April 1955, pp. 75-89.

[7] One study that demonstrated this is Eugene F. Brigham, *Equipment Leasing*, unpublished MBA thesis, University of California at Berkeley, 1957.

[8] A comprehensive document that reflects this changed attitude is the General Accounting Office Report to Congress, *Unnecessary Costs to the Government in the Leasing of Electronic Data Processing Systems by Aerojet-General Corporation*, Comptroller General of the United States, June 1964.

3. *Sale-and-Leaseback of Depreciated Property*

Although the largest volume of sale-and-leaseback arrangements has involved real property, a substantial number of leases have been written on more or less fully depreciated personal property. The reasons behind such financing are simple. A firm finds that it needs additional funds, and that it can use some of its existing assets (which are fully depreciated but still valuable) as security for raising the money. The assets are currently producing income that is taxable at normal rates,[9] but, if the firm sells the property and leases it back, its proceeds (presumably the approximate present value of the future receipts from the assets but no more than their replacement cost) are taxable as capital gains; hence, it has converted normal income into a capital gain. Although the firm has accelerated the date of the tax payment, cash flow analysis will show many situations where the lower tax rate makes this acceleration quite profitable.

Unfortunately for the leasing industry, however, a regulation that was put into effect on January 1, 1964, renders gains realized from the sale of capital assets used in the ordinary course of business taxable as ordinary income; hence, this advantage to leasing will not be valid in the future.

4. *Credit Availability*

Still another of its advantages is the fact that leasing can improve the appearance of a firm's balance sheet and thus make future financing somewhat easier. If a company borrows the money to buy an asset, the debt appears on its balance sheet, thus increasing its debt/equity ratio and lowering its apparent creditworthiness. If the asset is acquired under a lease arrangement, however, the obligation appears only in a footnote, and sometimes not even there. Several studies have indicated that even the more sophisticated credit analysts do not always fully consider leased assets and the related obligation to make lease payments, and the credit departments of firms supplying trade credit almost certainly do not give them the same weight that they would debt appearing directly as a liability on the balance sheet.[10] The result is that a firm may be able to get more leverage from a given amount of net worth by doing some lease financing.

This increased credit availability simply amounts to legerdemain, of course, and many in the accounting profession hope to stamp it out by changing established accounting practices to cause leases to be capitalized and shown directly on the balance sheet. There are problems associated with this procedure —not the least of which seems to be inertia and resistance to change—but the most authoritative work on the accounting question to date, the study by John H. Myers for the American Institute of Certified Public Accountants, strongly recommends capitalization and suggests that it could be done without any overwhelming difficulties.[11] Should capitalization become the rule, then another of leasing's advantages will be effectively eliminated, but it does not appear likely that this will happen in the immediate future.

B. The Supply of Funds for Leasing

The principal suppliers of financial leases are equipment leasing companies like Boothe Leasing Company or U.S. Leasing, sales finance companies such as CIT, manufacturers and distributors of

[9] This income is, generally, regular business income that could not be obtained without the use of the property.

[10] Cf. Richard F. Vancil and Robert N. Anthony, "The Financial Community Looks at Leasing," *Harvard Business Review*, November-December, 1959, pp. 113-130.

[11] Myers, *op. cit.*

equipment, and now commercial banks.[12] The sales finance companies typically write relatively small leases ($25,000 or less), and the manufacturer/distributor lessors generally restrict their activities to equipment that they sell; the specialized leasing companies, on the other hand, cover the whole range of operations. It is too early to tell just how banks will participate as direct lessors, but preliminary indications suggest that many entering the industry will simply offer lease arrangements to their regular loan customers as another part of the financial package.

The leasing companies have historically been financed in two ways—by their own equity capital and by commercial banks (and occasionally life insurance companies on large, long-term leases to very strong companies). Until recently, the leasing companies obtained most of their equity funds (generally 8 to 15-percent of assets) from the sale of stock to the public, but lately a large amount of new capital has come into the industry as a result of mergers with industrial corporations and with larger financial institutions.[13] The leasing companies appear to be prompted to merge because of their acute need for equity capital and their difficulties in selling stock to the public in the face of low reported earnings,[14] and the new parents are frequently companies whose internally generated funds are larger than their profitable internal investment opportunities. It is hard to forecast whether or not this merger trend will continue. On the one hand, if bank entry increases competition in the industry, there will be pressure for the leasing companies themselves to initiate merger negotiations or to be amenable to such proposals. But, on the other hand, increased competition may lead to reduced profitability, and hence may reduce the demands of the leasing companies for new equity funds and also the attractiveness of a leasing company to cash-heavy prospective parents.

Manufacturers may also become increasingly active in supplying funds to the leasing market. It is a well publicized fact that manufacturing firms have had a relatively large amount of internally generated funds in recent years, and this, coupled with the fact that excess capacity exists in many lines and thus reduces the profitability of further internal expansion, is tempting companies to employ their excess funds by extending credit to their customers.[15] Should this situation continue, then manufacturing companies could become an even more important factor in the leasing market. There is, in addition, another consideration that makes manufacturers and distributors especially effective as lessors: as will be seen in the next section, the ability to

[12] Commercial banks, and also life insurance companies, have long been active suppliers of funds to the direct lessors, but this does not put them in the leasing business any more than making farm loans would make them farmers.

[13] Some examples of recent mergers (or purchases of large amounts of leasing company stock) include Personal Property Leasing with Transamerica Corporation, Nationwide Leasing with Walter E. Heller Company, Boothe Leasing with Greyhound Corporation, Rochester Capital Leasing with Republic Steel, Equilease with Electric Autolite, and Bankers' Leasing with Southern Pacific.

[14] The reported earnings of many leasing companies are relatively low because of the fact that, frequently, a large proportion of their total profits come from their residual interest in the leased property at the expiration of the basic lease (discussed in greater detail in the next section). Once their growth diminishes, reported profits will be accurate, but in the meantime reported current earnings of many companies are decidedly low.

[15] An interesting fact highlights the excess cash problem facing many segments of American industry—in 1963, for the first time since World War II, manufacturing and mining firms bought up and retired more common stock than they issued. *Fortune*, May 1964, pp. 75-76.

evaluate the probable value of the equity remaining at the expiration of a lease and to dispose of repossessed property are both extremely important, and manufacturers and distributors would appear to have a clear edge over other types of lessors in these respects.

Commercial banks have supplied a large amount of funds to the leasing markets through their financing of the other direct lessors.[16] As they begin to write a greater volume of lease contracts themselves, their willingness to supply other lessors may diminish somewhat, but it will be more than offset by banks' willingness to lease directly. The conclusion is that banks will offer substantially more funds to leasing in the future than they have in the past.

II. *Factors Affecting the Profitability of Different Credit Instruments: Leases and Term Loans Compared*

Contract interest rates (implicit rather than explicit in most lease contracts) differ among credit instruments depending on inherent differences in the various instruments. For example, if a particular type of loan costs more to make or service, or if it has a greater probability of default than some other credit, then it should carry a higher rate of interest. The special characteristics of financial leases that ought to affect their implicit contract rates are discussed in this section, and since leases are basically a substitute for secured term loans, they are compared with this type of credit.

A. Term to Maturity

Financial leases are intermediate-term obligations with maturities generally ranging from three to eight years, the term depending on the nature of the equipment and the needs and qualifications of the borrower. If the equipment has an expected economic life of ten years, for instance, and if the borrower would qualify for an amortized secured term loan with an eight year maturity, then the firm would probably be given an eight year lease. Some of the literature dealing with leasing suggests that a lease is frequently written for a longer period than could be obtained on a term loan by a given company, but conversations with loan officers and leasing company officials suggest that this is largely a myth. It is possible that some leasing companies have written rather small leases to rather weak firms for longer terms than could have been obtained from the banking system, but this type of business is quite small in relation to the total volume of financial leasing. In the more typical case the bank or insurance company that discounted the lease would insist on holding the term to maturity to about the same number of years for which they would advance term loan money.

The question of maturity on bank leases stimulated more discussions in the conferences and comments on the earlier draft of the paper than perhaps any other topic. The leasing company officers suggested that their firms could and would extend longer terms than banks would permit on either term loans or leases, and they indicated that large, long-term leases would be financed through life insurance companies. The bankers, on the other hand, generally felt that they could offer long-term leases to larger customers by arranging participations with life companies just as they have done in the past with term loans, and the following quotation reflects the feelings of the bankers with respect to leases to smaller firms.

I actually think that where banks are dealing with small companies which have been customers over a long period of time that

[16] This credit has generally taken the form of a loan to the leasing company secured by an assignment of the rentals paid by the lessee and by a chattel mortgage on the leased property.

they are quite likely to agree to longer terms than would be the case with a leasing company where the leasing company is thinking primarily of qualifying the lease as security with a particular lender who may have established a rather rigid pattern not related to the individual credit of the lessee.

B. Risk of Default [17]

In extending credit to any given firm, is a bank's (or other lender's) exposure to risk greater if the credit instrument is a term loan or a lease contract? This involves two separate considerations—the probability of default and, if default occurs, the probability of loss on the credit. The danger of default on leases and term loans is equal, since the maturity of each type of instrument is approximately the same in any given situation; hence, the risk comparison hinges on the likelihood of collection on a defaulted lease or loan.

Satisfaction under either a lease or a secured term loan can come from the recovery and sale of the equipment or, if this is insufficient, by obtaining and collecting on a deficiency judgment against the lessee or borrower. Under a term loan secured by a chattel mortgage, the lender can presumably recover the mortgaged equipment and still be classified as a general creditor for any difference between his unamortized cost and the value of the equipment. He may, however, have to wait for a rather long time for either remedy if a complicated reorganization is involved, and during this waiting period the investment is not yielding any return. If a lease exists, on the other hand, a receiver or trustee in bankruptcy must continue making the full payments all during the period of receivership if the leased property is being used in the business.[18] If he decides not to continue using it, then the courts have ruled that leases may be broken by returning the leased equipment and paying an additional three years' rental in the event of reorganization or one year's rental in the event of bankruptcy.

Given these differences, it is difficult to generalize about which would be the better instrument in a default, but it is clear that the position of a lease deteriorates *vis à vis* that of a secured term loan as the maturity lengthens. This is true because the one year or three years' additional rental payment becomes a smaller and smaller proportion of the unamortized cost as the lease term is extended; hence greater and greater reliance must be placed on the security of the equipment itself. In the case of the term loan, on the other hand, the lender qualifies as a general creditor for any unsatisfied balance remaining after disposal of the property.

The bankers attending the conferences felt it highly unlikely that they would make a long-term lease to a firm that might default within less than one or two years; thus, at least a portion of the cost would doubtless be collected before default. This portion, naturally, would be larger, the shorter the basic maturity of

[17] Myers, *op. cit.*, documents much of the legal material in this section. Like most legal matters, the treatment of leases in the event of default is subject to judgment and interpretation, and hard-and-fast pronouncements are dangerous. It can be stated, though, that the bank attorneys who attended the conferences had researched the legal questions and were generally in agreement with the statements made herein.

[18] The trustee may, of course, negotiate with the lessor for a reduced rental. For example, the trustee may offer to continue using the equipment if the lessor will agree to scale the lease payments down to one-half the prescribed amount. The lessor's decision will depend upon the resale market for the assets in question; if the assets have a relatively high resale value, then he will refuse the offer, remove the equipment, and sell it, while if the resale value is low, he may be forced to accept the reduced rentals. If the equipment is essential to the business, however, the lessor is in a particularly strong bargaining position *vis à vis* the failing lessee firm.

the lease. Given this probable normal recovery, the allowable deficiency judgments, the collateral value of the equipment, and the treatment during the period of receivership, it was decided that a lease would probably be a more desirable instrument than a term loan if the maturity were less than three or four years, that they would be about equally risky for maturities of five or six years, and that the lease would be more risky for maturities of seven years or longer.[19]

C. Operating Costs

Four types of costs should be considered when comparing different credit instruments: (1) selling costs, or the costs of obtaining the loan; (2) costs incurred in setting up the loan, e.g., recording expenses, title search, and so forth; (3) administrative or servicing costs, including collection costs on slow accounts; and (4) expenses incurred at the termination of the contract.

While the leasing companies have rather heavy selling costs—usually in the form of advertising and sales commissions—the bankers expect their own sales expenses to be low. All of the banks represented at the conferences planned to advertise the fact that they were writing leases, but they felt that such promotion would be minimal and that the bulk of their leasing business would be with their normal loan customers, who, for one reason or another, wanted to lease rather than borrow. This being the case, it was concluded that banks' selling costs would be approximately the same for leases as for term loans.

Initially, it was felt that leases might be more expensive to write and set up than term loans, but as the discussion in the conferences progressed this view was discarded. The lease contract that would be used would be standardized in much the same way as the regular term loan agreement, and the bankers felt that it would be necessary to deviate from the standard lease in the same way and at the same time that it would be necessary to deviate from the standard term loan contract. The costs involved in recording leases would probably be somewhat less than those for term loans secured by chattel mortgages—practically all mortgages would be recorded, but not all leases would be.[20] However, since recording costs are nominal this difference was not thought to be material.

Servicing costs were believed to be almost exactly the same under a lease as under a term loan. The collection process and record-keeping would be similar for both credits, and the fact that the bank would have to depreciate the leased asset was not considered material. The question of insurance on leased assets was brought up, but because this cost is borne by the lessee, the lessor must have only a blanket back-up policy to cover losses greater than those covered by the lessees' policies. One of the banks had just set

[19] These maturities are rather arbitrary, of course, and it was recognized that a great deal depends on the nature of the equipment in question. If it is vital to the operation of the business, and if the business is not likely to be liquidated in the event of financial problems, then the lease will probably be maintained during and after reorganization and the lease is more desirable. If, on the other hand, the equipment is not essential and the lessee has substantial unencumbered assets that could be used to satisfy general creditors, the term loan is better for almost any maturity.

If the securing property is highly marketable as, for example, fork trucks or standard machine tools, then the discussion is rather academic—the creditor will probably be able to satisfy his claim regardless of its form.

[20] Since the lessor already holds title to the leased equipment, it should not be necessary to record the lease, but apparently this is done occasionally, especially in the case of sale-and-leaseback arrangements. The reason for this is that recording the lease removes any possible danger that general creditors could establish a claim to the leased assets in the event of bankruptcy.

up such a policy, and its costs were reported to be trivial.

Leases and loans can be terminated either because of default or normally, i.e., at the expiration of the contract. In the event of default termination, the costs incurred would probably be about the same under the lease or the loan. If anything, it might be somewhat easier to repossess the equipment under the lease since no title transfer is involved, but, again, this is probably not material. In the event of a normal termination, there is no cost whatever involved in the case of the term loan, and no net cost in the case of the lease. At the lease's expiration the lessor owns the asset, but there will normally be a purchase or renewal option giving the lessee permission to continue using the equipment in return for a fee. If the asset is actually worth more than the renewal or purchase cost, either to the lessee or to another user, then the lessee will exercise his option and the lessor will actually gain on termination. If the asset is not worth the option price, but is worth more than the cost of hauling it to the dump or the cost of finding a buyer, then the lessor can sell the equipment and again make a gain. If the asset is valueless, then the lessor can require the lessee to dispose of it. The standard lease contract has a clause requiring the lessee to deliver the asset, at his own expense, to any place in the city or county where the asset is used—including the city dump. It was concluded, therefore, that possible termination expenses could not be used to justify a higher implicit interest rate on a lease than on a loan to a given borrower.[21]

[21] The situation is quite different for most operating leases, and especially for short-term leases of automobiles. Here the lessee simply returns the leased asset to the lessor at expiration and the lessor must dispose of it. Note, however, that lessors who make operating leases are generally well situated to dispose of returned equipment; for example, automobile lessors include automobile distributors and others with access to retail and wholesale used car markets.

All of the above assumes one rather important condition—that the banks restrict their leasing activities to their own state. The bankers had considered the possibility of qualifying to do business in other states, but the decision at the time of the conferences was to limit most of their leasing to firms that would be using the equipment in California. It was decided that where a California firm of unquestionable credit strength wanted to lease equipment that would be used in plants outside the state there would be no problem, nor would there be a problem for a non-California firm that wanted equipment that would be used in a California plant or office. But, if a non-California firm wanted equipment that would be used outside the state, or if a weaker California firm wanted to lease equipment that would be used elsewhere, it was decided that the lease should be refused. The banks believed that in these latter cases it would be better to cooperate with a leasing company or a bank in the state where the equipment was to be used, rather than to attempt to qualify to do business in other states. This was a preliminary decision, of course, and the bankers planned to review their thinking as they gained experience.

D. Deposit Relationships

If a bank, by making a particular loan, is able to obtain additional deposits equal to X-percent of the amount of the loan, and if these additional deposits can be invested to yield Y-percent after costs, then the actual return on the original loan is really XY-percent higher than the contract interest rate. Suppose, for example, that (1) a bank can make a loan to a given borrower and thereby obtain his deposit account, (2) this deposit account will average 15-percent of the outstanding loan balance (perhaps enforced by a compensating balance requirement), and (3) the bank can invest the deposits to yield 4-percent net. Given these condi-

tions, the bank could afford to make this particular loan at a rate .6-percent below the charge to a nondeposit customer under similar circumstances.[22] All the banks represented at the conferences indicated that their plans were to lease to their regular customers and to require compensating balances in those situations where they would be required under a term loan. Under these conditions, deposit relationships would not be a basis for differences in lease and term loan charges.

E. Residual Values

The lessor still has title to the leased equipment when a lease expires, and the value of this residual interest may have a pronounced impact on the overall profitability of a given lease. The proper method of taking residuals into account can be illustrated by a simple example.[23]

Assume that five years ago an item of equipment costing $1,000 was financed by a lease calling for payments of $237.40 annually, payable at the end of each year. (This payment amortizes the cost of the equipment and provides the lessor with a return on his investment equal to 6-percent.) Assume also that the lease had an option allowing the lessee to purchase the equipment for 10-percent of cost, or $100, and now that he has satisfied the initial conditions of the contract, the lessee decides to exercise his option and buy the asset. When he makes this decision, the effective rate of return on the lease is boosted from a nominal 6-percent to about 8½-percent, some forty percent greater.[24] With effects of this magnitude, it is obvious that residual values must be taken into account in rational lease pricing decisions.

In the above example the situation was considered *ex post*; how could one go about appraising the effect on the residual at the time the lease agreement is negotiated? Let us make the further assumption that at the time the lease described above was written the lessor consulted life expectancy records for the equipment, allowable tax depreciation schedules, and estimates that had been made up by the lessee, and on the basis of these three sources it was decided that the chances were 50-50 that the equipment would be worth the $100 option price, and that if it was worth less, it would be worth exactly nothing. Under these additional assumptions, the lessor would consider the expected value of the residual to be $50 and would use this figure in solving the equation given in footnote 24; the resultant expected rate of return would then be 7¼ percent. The realized value of the residual would never be $50, of course—we defined it to be either $100 or zero—but if the lessor is making reasonably good estimates, then the residual value of the average lease in his portfolio will approximate the expected yields.

If a lessor refuses to consider the value of residuals in his evaluation of leases, then he is implicitly assigning a zero probability to their actually being exercised. It is highly improbable that a conservative lender would lend or lease on the basis of a security that was expected to be valueless at the termination

[22] This figure is obtained as follows: (.15) × (.04) = .6-percent. The calculation ignores primary reserve requirements, capital requirements, and the cost of handling deposits. Given these added conditions, the .6-percent could be reduced considerably.

[23] The example presented herein is oversimplified, but for a more detailed explanation of the conceptual scheme and a more realistic example see R. Bruce Ricks, *Recent Trends in Institutional Real Estate Investment*, Center for Real Estate and Urban Economics, University of California at Berkeley, 1964, pp. 100-105.

[24] The 8½-percent figure is found by determining the interest factor that solves the following equation:

$$\$1{,}000 = \sum_{t=1}^{5} \frac{\$237.40}{(1+r)^t} + \frac{\$100}{(1+r)^5}.$$

of the contract. The experience of leasing companies indicates that in some 90 to 100-percent of all leases either a renewal or a purchase option is exercised.[25] Moreover, the Internal Revenue Service has made extensive surveys of the length of time that industrial equipment is actually used, and on the basis of these studies firms are generally required to estimate a salvage value even when depreciating over a period well in excess of the term of most lease contracts.[26] Finally, if the lease is to be actually considered a lease for tax and other purposes, then the lessor cannot give away the residual value by such tactics as granting a $1.00 purchase or renewal option. In view of all the evidence, we conclude that the residual interest in leases will in fact be quite valuable.

F. Accelerated Depreciation

If a bank makes a loan to a given borrower it receives periodic payments that include an interest component, which is taxable, and a return-of-capital component. Assuming that the bank pays income taxes at the rate of 50-percent, the effective after-tax yield on the loan is cut in half. The situation is different in the case of a lease, however. Here the bank takes the entire amount of the lease payment into income, but it is permitted to depreciate the leased asset down to the estimated value it will have to the bank at the expiration of the lease (presumably the estimated residual value). Since the bank is able to take accelerated depreciation on the equipment, its tax payments will be lower in the early years of the lease, and this produces a faster cash flow and higher after-tax yield than could be obtained from a comparable term loan. Table 1, which shows the method of calculating the cash flow under the lease, indicates that the after-tax return on the hypothetical lease used in the example above is 3¾-percent as compared with 3-percent for the term loan. Percentagewise, this is a substantially higher yield, and it thus seems highly desirable to consider the cash flow effects of leases when determining the implicit interest rate that should be used in computing the lease payment schedule.

G. Investment Tax Credit

If a bank or other lessor buys and leases new equipment having a life of four or more years, it is entitled to a tax credit equal to an amount ranging from 2.33-percent to 7-percent of the cost of the asset.[27] This credit may legally be transferred to the lessee, but if it is retained by the lessor it has a very important impact on the profitability of the lease. In the example used above, for instance, the effective yield before taxes is raised from 6-percent to 6.9-percent if the lessor gets the credit;[28] the increase is considerably

[25] This figure was indicated to the author by a number of leasing company officials. It cannot be documented, but that leasing company residuals are actually realized is attested by the fact that national accounting firms permit the lessors to take estimated residuals into income over the life of the lease.

[26] Another example that supports this contention is contained in the General Accounting Office study cited earlier. This report makes the statement that "we have noted . . . that the sales policy of the largest manufacturer of this equipment places a value on this type of equipment of from 50 to 70 percent of the original purchase price even after the equipment has been installed and utilized by the customer for 5 years." (Page 7.) This refers specifically to electronic data processing equipment, one of the most important forms of equipment to leasing companies and bank lessors.

[27] If the asset has a life of 4 or 5 years, the 7-percent credit is applied to ⅓rd of the cost of the asset; 6 or 7 years, ⅔rds of the cost; and 8 or more years, the full cost. If the asset actually has a depreciable life that is longer than the life of the lease, then the lease period is the governing term.

[28] 6.9-percent is the discount rate that solves the following equation:

$$\$1000 - \$23.33 = \$977.67 = \sum_{t=1}^{5} \frac{\$237.40}{(1+r)^t}.$$

Table 1

Cash Flows to Banks Under a Hypothetical Lease Arrangement (5 year lease, 6-percent implicit interest rate)

Year	Payment (1)	Depreciation* (2)	Taxable Income (3) = (1) − (2)	Income Tax† (4) = .5 × (3)	Cash Flow (5) = (1) − (4)	Discount Factor (3⅜%) (6)	Present Value of Cash Flow (7)
1	237.40	333.33	(95.93)	(47.96)	285.36	.96735	276.04
2	237.40	266.67	(29.27)	(14.63)	252.03	.93577	235.84
3	237.40	200.00	37.40	18.70	218.70	.90522	197.97
4	237.40	133.33	104.07	52.03	185.37	.87566	162.32
5	237.40	66.67	170.73	85.37	152.03	.84708	128.87
		1000.00					1001.04

Note: When each year's cash flow is discounted at 3⅜-percent the sum of the discounted flows is approximately equal to the $1,000 cost; hence, 3⅜-percent is the after-tax yield on the lease.

* The depreciation is computed by the sum-of-years digits method assuming a zero salvage value.

† The Income Tax is computed on the basis of a 50-percent tax rate.

greater if a longer-term lease with a larger tax credit is involved.

How is the investment tax credit being handled at present? Interviews and correspondence with leasing company officials indicate that most lessors do not introduce the tax credit in the negotiation of leases; they retain the credit for themselves, but are willing to transfer it to the lessee if he requests it. Other companies strive to retain the tax credit, or follow the opposite policy of publicizing their willingness to transfer the credit as a selling device. There are no figures available on the percentage volume of equipment leases in which the lessor retains the tax credit, but some leasing company officials have placed the estimate as high as 60 to 80 percent. It seems probable that the more sophisticated borrowers are likely to be the most common beneficiaries of the transference of tax credit, and that such transfers may become a common price-cutting device as competition in the industry increases.

The investment tax credit has had the interesting effect of extending the average term of maturity of leases that are currently being written. This point can be demonstrated by a simple example. Suppose a lessee wants to lease equipment with a depreciable life in excess of 8 years, but his credit strength does not warrant the lenders' extending the basic lease beyond 5 years. If the lease is written for 5 years with the option to renew for a reduced rental thereafter—as it would have been before the tax credit—only ⅓ of the tax credit can be taken. But if the lease is written for 8 years, with the payments during the first 5 years sufficient to recover the cost of the equipment and the payments for the last three years equal to the normal renewals, then the full tax credit can be taken. The lessor benefits from this arrangement because the residual is assured and, also, if the tax credit is to be retained, by the larger amount of that credit. In fact, however, in cases such as the one described, the credit is generally passed on to the lessee, because otherwise he would needlessly be denying himself the option to cease using the equipment after 5 years.

Table 2

Cash Flows to Bank Under a Hypothetical Lease Arrangement with Tax Credit and Residual Considered

Year	Payment	Depreciation*	Taxable Income	Income Tax†	Cash Flow	Discount Factor△	Present Value of Cash Flow
1	237.40	316.66	(79.26)	(69.63)‡	307.03	.95012	291.72
2	237.40	253.33	(15.93)	(7.97)	245.37	.90273	221.50
3	237.40	190.00	47.40	23.70	213.70	.85770	183.29
4	237.40	126.67	110.73	55.36	182.04	.81491	148.35
5	237.40	63.33	174.07	87.03	150.37	.77427	116.43
5	50.00§	—	—	—	50.00	.77427	38.71
							1000.00

* Computed by sum-of-years digits using $950 ($1000 cost less $50 estimated residual value) as the depreciable cost.
† Assumes a 50-percent tax rate.
‡ One-half of the negative taxable income, plus the investment tax credit of $30, is used to reduce the bank's income taxes. This assumes that the bank has taxable income from other sources.
§ The leased asset is assumed to be sold for the expected residual value. Since this is equal to the undepreciated cost, no taxable income is involved.
△ Discount factor at 5¼-percent.

H. Summary—Rate of Return on Lease Versus That on a Term Loan

The combined effect of all of the factors that differentiate the profitability of loans and leases—the tax credit, accelerated depreciation, and residual values—are summarized in Table 2. Here we see that the hypothetical lease (the same lease, but with different options assumed, that has been used in all the previous examples) provides an after-tax yield of 5¼-percent, as compared with a return of only 3-percent on the term loan, assuming that the loan and the lease both have a 6-percent interest factor built into their payment schedules. In the following section some actual lease charges are examined and compared with the hypothetical examples used thus far.

III. *Some Actual Lease Terms*

Unlike certain other credits where statistical records on rates and terms are available on an aggregate basis (e.g., mortgage loans and bank business loans), there is no good source of data on lease charges and terms. But since most leasing company leases are actually financed by banks, and since the bankers are furnished with a copy of the schedule of lease payments, it was possible to get a good idea of current leasing charges. In addition, several of the larger leasing companies have regular schedules of charges that they publish or otherwise make available. Thus, although it is not possible to give precise, documented data on lease terms, the information in this section is believed to be representative of the rates and terms currently available to potential lessees. Some estimates of the approximate terms to selected categories of lessees are presented in Table 3. The terms are all for five-year contracts to lessees with a Dun and Bradstreet (or equivalent) rating of "good" or better.

The bankers indicated that, in general, lease rates are somewhat above the interest rate that would be charged on comparable term loans, and several specific cases were cited where bank customers were leasing at implied contract rates of from ½ to 2-percent above the relevant term loan rates. One bank that was already leasing at the time of the conference had actually written leases to its

Table 3

Typical Lease Terms

Net Worth of Lessee	Cost of Equipment	Monthly Rental per $1000 cost	Implied Interest Rate†	Annual Renewal Option	Purchase Option‡
Under $200,000	under 25,000	$22.00	11½%	5%	10%
$200,000-$1 million	over 50,000	$20.30	8%	5%	10%
$1-15 million	over 50,000	$19.80	7%	5%	10%
$15-50 million*	over 50,000	$19.35	6%	5%	10%
over $50 million*	over 50,000	$18.90	5%	5%	10%

* Assumes "excellent" credit rating.

† An implied interest rate about 1 percentage point higher than those shown here is generally used on lease maturities greater than 5 years (where cost has not been recovered within 5 years). In other words, the payment schedule for an eight year lease to a borrower in the fourth category above would be computed on the basis of 5% simple interest for the first five years and 6% for the last three.

‡ Because of possible tax problems, purchase options are used infrequently. The lessee and lessor sometimes have an "understanding," however, that the lessee can buy the equipment at a stated percent of cost even though this does not appear on the lease contract.

regular loan customers at contract rates about ¾-percent above the lessees' term loan rates. In view of the higher implicit interest rates and the other factors brought out in the preceding sections, we conclude that at present leasing is substantially more profitable than term lending.

IV. *Market Conditions*

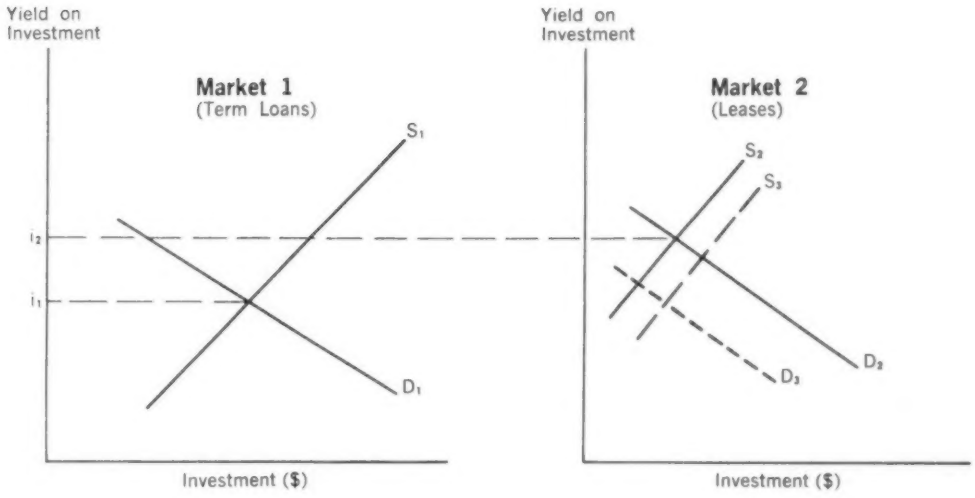
How can the pronounced yield differentials between leases and term loans be explained? Part of the answer probably lies in the fact that the lease rates described above were in fact set by leasing companies, and the costs of these firms are doubtless higher than those of banks. The leasing companies probably have a higher cost of capital; their nonselling operating costs may be somewhat higher; and undoubtedly their selling expenses are higher than those of the banks.

Another and perhaps more important part of the answer may lie in imperfections that have hampered the flow of funds into the leasing market. Consider the hypothetical situation illustrated on page 25 in the Figure, where Markets 1 and 2 represent the term loan and leasing segments of the loanable funds market; "S" and "D" are industry supply and demand curves; and the markets are assumed to be in equilibrium with net yields (after taxes and operating costs) of i_1 and i_2 prevailing on terms loans and leases respectively. Such a situation is probably caused by restrictions barring the flow of funds from Market 1 to Market 2—restrictions such as those that prevented banks from entering the leasing industry prior to Comptroller Saxon's ruling.[29] If this surmise is correct, then we may expect

[29] Yield differentials could also be caused by costs of transfering funds between markets or by another form of market imperfection, oligopoly combined with differences in the elasticity of demand in the two sectors. Neither of these is likely to be particularly important in the case at hand, however. For a more detailed theoretical discussion of these points, plus

FIGURE

Hypothetical Financial Submarkets



funds to move from the term loan market into the leasing market, thus driving term loan rates up (negligibly, as this market is so much larger) and lease rates down. At the same time, if our forecasts are correct, the demand for leasing may well be falling (at least relative to the demand for term loans), and this will also tend to equalize net yields in the two submarkets. The net effects of these potential changes are reflected in the diagram as shifts in the supply and demand curves in the leasing submarket to S_3 and D_3; here the effective yields are the same on leases and term loans.

V. *Conclusions*

A specialized set of circumstances relating to taxes, government contracting procedures, and the fact that lease obligations do not appear directly on the lessee's balance sheet have led to a strong demand for financial leases in most of the post-war period. During this time, however, the supply of funds to the leasing market has been relatively short, due in large part to restrictions on bank entry. The result of these two sets of forces has been a situation where substantially higher net yields prevailed in the leasing submarket than in a comparable market, that for term loans.

Forces currently at work seem destined to alter the present situation, however. There are indications that most of the

empirical data on a related financial market, see Leo Grebler and Eugene F. Brigham, *Savings and Mortgage Markets in California*, Pasadena, 1963, and a discussion of this report by Professor George Stigler in the *1964 Proceedings, Conference on Savings and Residential Finance*, U.S. Savings and Loan League, Chicago. The conclusion reached was that yield differentials between loanable funds submarkets are far more likely to be caused by barriers to funds movements than by oligopoly conditions.

principal reasons for leasing are being diminished as "cultural lags" are overcome. When these changes are combined with the fact of increasing availability of funds for leasing from the leasing companies' new parents, from cash-heavy manufacturers, and now from commercial banks, one might expect to see profit margins narrowed considerably in the leasing industry. Bank entry is certain to contribute to a more rational yield situation in the leasing submarket.[30]

[30] The Multer Bill (H.R. 9822), currently before the House Banking and Currency Committee, contains a provision that would prohibit national banks from engaging in direct equipment leasing.

► PAUL M. HORVITZ and SHERMAN SHAPIRO

This study presents and analyzes the results of a recent Treasury Department survey of commercial bank loan loss reserves.[1]

Loan Loss Reserves

Under present tax laws, a corporate taxpayer may deduct from gross income losses on bad debts in the year the losses are sustained. Alternatively, the taxpayer may establish a reserve account and make annual tax-deductible transfers of specified amounts to this reserve.

The operating advantage of the reserve method is that the sudden adverse effects on reported income and/or capital which can result from large losses are minimized.[2] A major tax advantage of the reserve method is that the taxpayer is spared the problem of determining when a loss occurs. A further consideration favoring the reserve method is the fact that if losses occur in depression years in which the taxpayer's operating income is low, losses could exceed income, and the taxpayer under the direct charge-off method could lose the benefit of a full tax offset. Allowing losses to be carried back or forward reduces this possibility.

For several reasons, the position of commercial banks is somewhat different

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[1] Throughout the article the term "loan loss reserves" is used interchangeably with "bad debt reserves."

[2] If reserve accounts appear on the firm's balance sheet, the amount of losses incurred in any year can still be determined by analysis of comparative balance sheets and income statements.

from that of other taxpayers in regard to losses on bad debts. The major business of commercial banks is lending. Some of these loans will give rise to losses, and the amount of such losses may vary greatly from year-to-year. The occurrence of large losses in any single year, which may simply be an embarrassment to the ordinary business firm, may adversely affect the confidence of the public in a bank suffering such losses. Since the liabilities of commercial banks are payable on demand or on short notice, such a loss of confidence may be critical. Moreover, for most banks, ordinary capital accounts are only a small fraction of the amount of loans subject to potential loss.

There is no specific provision of the Federal income tax statutes which deals with bad debt reserves for commercial banks.[3] Commercial banks, like other taxpayers, must look to the general provisions of the Internal Revenue Code which deal with bad debts. Under Section 166(c) taxpayers are allowed, in the discretion of the Secretary of the Treasury or his delegate, a deduction for a reasonable addition to a reserve for business bad debts.

Provision for use of a reserve method for handling loan losses first appeared in the Revenue Act of 1921, but for various reasons banks did not make substantial use of the reserve method until after World War II. In 1947, in recognition of the differences between commercial banks and ordinary business firms, the Internal Revenue Service published standards for deductions from taxable income of transfers to bad debt reserve accounts by commercial banks.[4]

Under this ruling, commercial banks were allowed to compute their average loss ratio (losses as a percentage of eligible loans[5]) over the last twenty years (including the taxable year). This average loss ratio could then be applied to the volume of loans currently outstanding, and the resulting figure would be allowed as a deduction from taxable income when transferred to the bad debt reserve. The provision for a twenty-year average allowed banks to include their losses during the depression of the 1930's in their loss calculations.[6]

Another provision of the 1947 ruling allowed banks to continue transfers to reserves, subject to the annual limitation discussed above, until the reserve account was equal to three times the current allowable annual transfer. This privilege is not available to other taxpayers, and has been criticized as a special tax benefit to commercial banks. It is important to realize, however, that limits on the size of the reserve (as distinct from limits on the amount of the annual transfers to the reserve), are relevant only if the annual transfers allowed are consistently larger than actual losses. At the time the ruling was issued, bankers could look backward to their depression losses of only a relatively few years earlier. In 1947, forecasts of a postwar depression were common. It was not unreasonable at that time to believe that losses equal to those realized, on average, over the last twenty years could be expected again. Considering the tendency of commercial bank losses to be bunched in a few years, the multiplier factor of three times annual losses did not appear unreasonable. In any case, if

[3] There are, on the other hand, specific provisions relating to transfers to reserves for mutual savings banks, and savings and loan associations. See Section 593 of the Internal Revenue Code of 1954 (26 U.S.C. 593).

[4] IRS Mimeograph 6209, December 8, 1947.

[5] "Eligible loans" include nearly all loans except those loans or portions of loans guaranteed or insured by the U. S. Government.

[6] Other business firms must base their transfers on more recent experience—usually five years instead of twenty.

losses in the future turned out to be lower than those of 1928-1947, transfers to reserves would be reduced since the loss ratio was based on a moving average of the last twenty years' experience.

The 1947 ruling provided a powerful stimulus to use of the reserve method by banks, and by the end of 1948, 38 percent of all insured commercial banks were using that method. As time went on and the depression years began to be excluded from the calculation of loss experience, bankers sought a more advantageous formula. In 1954, the Internal Revenue Service added an alternative to the twenty year moving average calculation. Under an Internal Revenue Service ruling, banks were allowed to use *any* consecutive twenty years of their experience after 1927 in calculating their loss ratio.[7] For most banks, of course, a return to the 1928-1947 base was most favorable. Thus commercial banks, in making tax-free transfers to reserve accounts, may now make use of their highest loan loss experience.

Questions have been raised concerning the soundness of the present provisions for loan loss reserves. It is contended by some that the loan loss reserve is intended to be an estimate of losses that may be expected on outstanding loans. Thus, "the standard of reasonableness of annual additions to reserves is predicated on the adequacy of the amounts allowed to offset charge-offs and to accumulate reserves sufficient to absorb reasonably anticipated bad debt losses."[8] Viewing the present system in these terms, some argue that the recurrence of a depression like the 1930's cannot be "reasonably anticipated," so that the present provisions are too liberal.[9] In a study prepared for the Commission on Money and Credit, E. Gordon Keith concluded that commercial banking and its environment have changed considerably in the last thirty years.[10] Many bankers, on the

[7] IRS Rev. Rul. 54-148 (April 8, 1954). Banks which were not in existence in 1928 are allowed to use a loss ratio based on the twenty-year experience of "comparable" banks. The selection of "comparable" banks has led to extensive negotiation between banks and the Internal Revenue Service.

[8] *American State Bank* v. *United States*, 176 F. Supp. 64 (D.C.E.D. Wisc. 1959), aff'd, 279 F. 2d 585 (7th Cir. 1960), cert. denied, 364 U. S. 881.

[9] But the American Bankers Association contends that: "Bad debt reserves are not designed primarily to meet the contingencies of the 'normal' year but, rather, those of the exceptional year or period." ABA memorandum, "Commercial Bank Bad Debt Reserve: Eligible Loan Base," July 3, 1964, p. 3.

[10] "(D)evelopments of the past 30 years make it extremely unlikely that either the banks or their business customers will again be subjected to the kinds of pressures they were placed under during the early years of the great depression. We know a great deal more today than we did 30 years ago about the causes of economic instability, and we know better how to deal with this problem when it arises. We shall undoubtedly continue to have booms and recessions; but we should be able to prevent these recessions from developing into grinding depressions.

"But it is not only the economic setting in which the commercial banks operate that has changed during the past 30 years. The banks too have changed, and so have their customers. Most of the banks today are bigger, and stronger, and better managed than they were in the twenties and thirties. The techniques of bank lending were 'virtually revolutionized' during the 1930's; and the practices and policies which were partly responsible for the difficulties which the banks found themselves in during the depression were corrected. . . .

"To the extent that these changes in the economic setting, and in banking policies and practices, have reduced the probability of a repetition of the loss experience which the commercial banks had on their loans between 1930 and 1935, the use of the present bad debt re-

other hand, believe that the present system does not enable most banks to provide adequate reserves in view of the nature of the banking business.[11] After analyzing the problem the Comptroller's Advisory Committee concluded that:

(T)he present average bad debt reserve ratio of the banks is approximately 2.45% of their loan portfolio. Reserves based on this average ratio are too low in view of the need for banks to meet the substantial and increasing demands for credit in a dynamic economy and to protect their depositors. Our economy requires the extension of bank credit in a number of new forms, for many new purposes, and, perhaps, with new and substantial risks.

. . . The present system under which a bank's bad debt reserve depends on its own loss experience should be replaced by one providing that all commercial banks be permitted to build reserves for bad debts up to 5% of the quarterly average of all eligible outstanding loans at an annual rate not exceeding ½% of such loans.[12]

Another criticism of the present formula involves the relative treatment of commercial banks and non-bank financial institutions.[13] The Revenue Act of 1962 raised taxes paid by mutual savings banks and savings and loan associations, but nevertheless left the non-bank savings institutions in a substantially better position than that enjoyed by commercial banks. The basis for different tax treatment for non-bank savings institutions has rested on their mutual, non-profit character, and on the social policy of promoting home ownership. It may be questioned, however, whether these characteristics, to the extent that they are relevant today, justify the great differences in tax treatment between the commercial banks and the savings institutions. Moreover, these institutions have recently sought authority to engage in broader types of financing activities, and this development, if successful, would presumably call for reconsideration of their tax status.[14]

Both those who seek a liberalization of the present system and those who would tighten it agree that the present system is inequitable. Each bank's loss ratio is now based on its own experience, generally of many years earlier. A bank

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serve formula has permitted these institutions to understate their current taxable income, and so to shift a portion of their income tax burdens onto other taxpayers."

("The Impact of Federal Taxation on the Flow of Personal Savings Through Intermediaries," in *Private Financial Institutions*, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963, pp. 396-397.)

[11] Banks that wish to establish bad debt reserves beyond those which are tax deductible are not prevented from doing so by Internal Revenue Service rulings. These rulings set limits only on the tax deductibility of transfers to bad debt reserves, not on the amount of such transfers. Commercial banks have put only small amounts in bad debt reserve accounts subject to taxation. These accounts totaled only $139 million at the end of 1963 (as compared with the $3.4 billion in IRS reserves). Critics of the treatment currently accorded banks argue that the small size of these additional reserves is an indication of the extent to which commercial banks believe that prudent banking requires larger reserves than are now tax-deductible.

[12] *National Banks and the Future*, Report of the Advisory Committee on Banking to the Comptroller of the Currency, Washington: U.S.G.P.O., 1962, p. 169.

[13] Since there are differences in operations of commercial banks and other industries, some of the special tax benefits that have been devised for other businesses are not available to commercial banks. Approval of rapid depreciation methods and the investment credit do not significantly benefit commercial banks, to say nothing of such special tax benefits as percentage depletion. Of course, some tax provisions, available to all taxpayers, are of special benefit to commercial banks. Tax exemption of interest on municipal bonds is an outstanding example. The special capital gains-ordinary loss treatment of bank security transactions is a tax benefit not available to other taxpayers.

[14] It might be noted that equal treatment for bank and non-bank institutions can be achieved *either* by raising taxes on non-bank institutions *or* by lowering them on commercial banks.

Table 1

Number of Insured Commercial Banks Using Bad Debt Reserve Method, by Size of Bank, End of Calendar 1963

Number of Commercial Banks	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Using Bad Debt Reserve Method	946	2,319	2,018	1,632	803	251	67	8,036
Not Using Bad Debt Reserve Method	2,105	2,050	747	274	56	7	0	5,239
Total	3,051	4,369	2,765	1,906	859	258	67	13,275

which through good management suffered relatively few losses during the depression is allowed a lower reserve than the bank that did poorly in the depression years. Past good management is thus penalized and poor management rewarded, and neither case may be related to present management ability.

An earlier study by the Office of the Comptroller of the Currency pointed up the problem of inter-bank inequities:

> The reserve for bad debt study revealed substantial inequities between commercial banks having very high loan loss experience factors and those having small factors. Simply to show the spread between the high and low loan loss factors, a bank in Illinois is permitted under the present formula to establish reserves for bad debts equal to 24 percent of its eligible loans. On the low side, a bank in Pennsylvania having eligible loans of $1,400,000 has a loan loss factor of only 0.002 percent entitling it to a present reserve ceiling of only $84.[15]

The tax advantages of the reserve method make it advisable for virtually all banks to use it.[16] We have noted that 38 percent of insured commercial banks used the reserve method in 1948. By 1957 this had risen to 51 percent. As of the end of 1963, 61 percent of insured commercial banks used the reserve method. In view of the substantial advantages, it is surprising that 39 percent do not take advantage of the opportunity. The data in Table 1 show that it is principally the small banks which have failed to use the reserve method. Only 7 of the 325 banks with deposits of over $100 million do not use the reserve method. On the other hand, over two-thirds of the 3,051 banks with deposits under $2 million do not use the reserve method. Of the 5,239 insured banks which do not use the reserve method over 79 percent have deposits of less than $5 million.

[15] *Annual Report of the Comptroller of the Currency*, 1957, p. 13.

[16] Thus a recent study concludes that "(I)t is almost universally true that the reserve method is more advantageous to the taxpayer than the specific charge-off method." Henry C. Smith and Joseph Tovey, *Federal Tax Treatment of Bad Debts and Worthless Securities*, New York: Ronald Press Co., 1964, pp. 121-122. It is significant that Smith and Tovey are referring to the ordinary business taxpayer. Their statement is obviously even truer of commercial banks since they have some advantages not allowed to other taxpayers.

Table 2

Deposits, Loans, Eligible Loans, Reserves, and Reserve Ceilings for Commercial Banks Using Bad Debt Reserve Method, by Size of Bank, End of Calendar 1963

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Total Deposits	$1,319,203	$7,909,981	$14,218,047	$25,010,230	$37,488,722	$54,352,278	$112,010,498	$252,308,960
Total Loans	$ 686,131	$3,989,442	$ 7,208,169	$12,995,494	$20,490,329	$31,372,849	$ 68,322,753	$145,065,168
Eligible Loans	$ 630,722	$3,763,014	$ 6,771,821	$12,161,547	$18,784,195	$28,597,764	$ 64,334,290	$135,043,352
Present IRS* Reserves	$ 12,949	$ 74,701	$ 138,526	$ 260,965	$ 437,207	$ 611,322	$ 1,462,863	$ 2,998,533
Other Loan Reserves	$ 564	$ 5,109	$ 7,689	$ 16,258	$ 13,561	$ 31,558	$ 64,682	$ 139,421
Present Ceiling	$ 17,694	$ 97,581	$ 178,082	$ 316,779	$ 523,975	$ 702,002	$ 1,551,986	$ 3,388,100
Ratio of Loans to Deposits (Percent)	52.0	50.4	50.7	52.0	54.7	57.7	61.0	57.5
Ratio of Eligible Loans to Total Loans (Percent)	91.9	94.3	93.9	93.6	91.7	91.2	94.2	93.1
Ratio of Ceiling to Eligible Loans (Percent)	2.8	2.6	2.6	2.6	2.8	2.5	2.4	2.5

* Internal Revenue Service

The major reason for the failure of small banks to adopt the reserve method probably lies in the complexity of the present system. The small bank frequently lacks the records to calculate loss experience back to 1927. In other instances, inertia may account for the failure to use the reserve method. Many small banks may be unaware that the reserve method may be used by banks that otherwise are on a cash system of accounting. As a result, many small banks do not obtain the tax benefits to which they are entitled.

I. *Treasury Study*

The inequities in the present system have led to many suggestions for change. One problem has been the lack of accurate data on the current use of the reserve method, on the number of banks that would be favorably or adversely affected by proposed changes, and on the effects of such changes on Treasury tax revenues derived from the commercial banking industry. To fill this gap, the Treasury has recently completed a study of individual bank data, including a questionnaire sent to all insured banks late in 1963.[17] Most of the data in this paper are derived from that study.

We have pointed out above that the larger banks tend to make more use of the reserve method than do small banks. Tables 2 and 3 show that banks using the reserve method accounted for 92 percent of insured bank deposits, and 93 percent of loans at the end of 1963. The present reserve ceiling for banks using the reserve method averages 2.50 percent of eligible loans. In 1957, the comparable figure was 2.43 percent. Eligible loans

[17] Responses were received from nearly all insured commercial banks. The number of nonrespondents was less than 25.

Table 3

Deposits, Loans, Eligible Loans, Reserves, and Reserve Ceilings for Commercial Banks Not Using Bad Debt Reserve Method, by Size of Bank, End of Calendar 1963

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Total Deposits	$2,574,659	$6,544,153	$5,117,381	$3,975,995	$2,392,675	$1,071,451	0	$21,676,314
Total Loans	$1,259,595	$3,105,023	$2,406,783	$1,935,602	$1,132,037	$ 601,222	0	$10,440,262
Eligible Loans	$1,172,312	$2,912,021	$2,263,910	$1,758,436	$ 997,434	$ 558,960	0	$ 9,663,073
Ratio of Loans to Deposits (Percent)	48.9	47.4	47.0	48.7	47.3	56.1	—	48.2
Ratio of Eligible Loans to Total Loans (Percent)	93.1	93.8	94.1	90.8	88.1	93.0	—	92.6

represented 93 percent of total loans at the end of 1963. Total reserves already established amount to 2.22 percent of eligible loans, or 89 percent of the ceiling. In 1957, actual reserves were about 83 percent of the ceiling. Thus, over the past six years banks have gotten closer to their legal ceilings despite the large increase in loans over that period.

Table 2 also indicates that the larger banks have lower allowable ceilings (in relation to eligible loans), on average, than the smaller banks. Banks with deposits of over $100 million had an average ceiling of 2.42 percent of eligible loans. The comparable figures for the smaller banks ranged from 2.81 percent for banks with under $2 million of deposits, to 2.59 percent for banks with deposits between $2 million and $5 million.

The variation in present ceilings among banks is shown in Table 4. Over 17 percent (1,412) of the 8,036 banks using the reserve method have a present ceiling of under 1 percent of eligible loans, 43 percent have a ceiling of less than 2 percent, 26 percent have ceilings between 2 and 3 percent, and 32 percent of the banks have ceilings greater than 3 percent of eligible loans. The extremes are also of interest. 524 banks have ceilings of less than one-half of 1 percent. On the other hand, 153 banks (2 percent of those using the reserve method) have ceilings of over 10 percent, and 88 of these have ceilings of over 20 percent. It is the wide range of allowable ceilings shown in Table 4 that gives rise to the criticism that the present system is inequitable among banks.

Of course, not all banks have reserves as large as are permitted under Internal Revenue Service regulations. For example, of the 1,412 banks with ratios of less than 1.0 percent, 737, or 52 percent, have reserves equal to or greater than the reserve ceiling. Only 48 of the 153 banks with ceilings of over 10.0 percent had reserves as high as their ceilings.

Table 6 shows the distribution of ceilings by states. Differences in ceilings among states are not large. In most states the median ceiling is between 1.5 and 3 percent. In only 4 states (Arizona, Hawaii, Nevada, Rhode Island) and the District of Columbia is the median ceiling below 1.5 percent. In only three states (Florida, North Dakota, South Dakota) is the median above 3 percent.

Table 4

Number of Commercial Banks with Various Bad Debt Reserve Ceilings as a Percent of Eligible Loans, by Size of Bank, End of Calendar 1963

Bad Debt Reserve Ceiling as Percent of Eligible Loans	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
.49 and Less	84	181	125	96	29	9	0	524
.50 to .99	105	286	230	159	78	25	5	888
1.00 to 1.49	112	261	236	199	85	36	14	943
1.50 to 1.99	120	285	279	213	121	44	14	1,076
2.00 to 2.49	102	351	295	256	110	30	13	1,157
2.50 to 2.99	93	243	218	224	93	22	7	900
3.00 to 3.49	70	163	146	123	74	26	5	607
3.50 to 3.99	42	111	97	71	50	11	3	385
4.00 to 4.99	59	143	157	105	71	24	5	564
5.00 to 5.99	49	93	94	74	39	8	0	357
6.00 to 9.99	70	158	107	92	43	11	1	482
10.00 to 19.99	17	26	9	7	4	2	0	65
20.00 and Over	23	18	25	13	6	3	0	88
Total	946	2,319	2,018	1,632	803	251	67	8,036

Table 5

Eligible Loans, Present Internal Revenue Service Reserves, Reserve Ceiling, and Number of Commercial Banks for Which Present IRS* Reserves Are Equal to or Greater than the Reserve Ceiling, by Banks with Various Bad Debt Ceilings as a Percent of Eligible Loans, End of Calendar 1963

(Dollar Amounts in Thousands)

Banks with Ceilings of (Percent)	Eligible Loans	Present IRS* Reserves	Reserve Ceiling	Number of Banks for Which Present IRS* Reserves are Equal to or Greater than the Reserve Ceiling	Total Banks
.49 and Less	$ 3,449,244	$ 14,585	$ 9,502	323	524
.50 to .99	9,409,265	68,633	73,798	414	888
1.00 to 1.49	20,839,678	252,765	268,678	380	943
1.50 to 1.99	23,470,763	371,132	406,530	362	1,076
2.00 to 2.49	16,209,820	309,777	360,369	370	1,157
2.50 to 2.99	23,832,287	579,207	638,740	277	900
3.00 to 3.49	14,198,027	402,175	444,552	165	607
3.50 to 3.99	7,305,470	255,394	280,621	113	385
4.00 to 4.99	10,059,387	391,156	443,777	135	564
5.00 to 5.99	2,699,609	119,925	146,531	100	357
6.00 to 9.99	3,521,819	193,483	259,138	106	482
10.00 to 19.99	324,966	27,906	36,034	15	65
20.00 and Over	22,369	14,391	21,904	33	88

* Internal Revenue Service.

Table 6

Frequency Distribution of Bad Debt Reserve Ceilings as a Percent of Eligible Loans, by States, End of Calendar 1963

State	Bad Debt Ceiling as a Percent of Eligible Loans												
	.49 and Less	.50 to .99	1.00 to 1.49	1.50 to 1.99	2.00 to 2.49	2.50 to 2.99	3.00 to 3.49	3.50 to 3.99	4.00 to 4.99	5.00 to 5.99	6.00 to 9.99	10.00 to 19.99	20.00 and Over
Alabama	5	8	20	22	30	11	14	6	11	13	17	2	3
Alaska	0	1	0	1	4	0	0	0	0	1	0	1	0
Arizona	1	2	2	2	0	3	0	0	0	0	0	0	0
Arkansas	1	13	13	21	15	8	13	5	7	2	8	4	3
California	11	19	11	13	31	9	3	2	1	1	0	0	0
Colorado	3	11	7	18	38	6	10	2	6	7	12	1	1
Connecticut	3	6	5	11	6	5	3	2	2	1	1	0	0
Delaware	0	2	0	2	1	0	1	0	0	0	0	0	0
Dist. of Col.	3	0	3	0	0	2	0	1	0	0	0	0	1
Florida	14	18	16	14	45	11	23	19	24	28	42	2	2
Georgia	14	19	33	22	41	28	19	5	19	12	11	4	7
Hawaii	2	2	2	0	1	0	0	0	0	0	0	0	0
Idaho	0	0	2	2	4	1	2	3	0	1	0	0	0
Illinois	28	38	70	86	105	139	52	20	52	27	55	3	10
Indiana	19	33	41	42	32	37	16	13	13	8	11	2	2
Iowa	35	55	48	48	78	67	22	11	25	10	7	0	4
Kansas	17	29	38	33	32	32	17	19	28	9	11	0	6
Kentucky	18	31	29	33	10	8	5	10	4	6	2	1	1
Louisiana	11	17	18	18	31	14	4	4	6	0	2	1	3
Maine	2	1	4	3	4	8	5	2	3	0	0	0	0
Maryland	7	7	13	10	10	2	2	1	2	1	0	0	0
Massachusetts	10	9	11	24	17	11	11	6	13	6	4	0	0
Michigan	23	34	28	38	51	39	18	14	12	6	5	0	1
Minnesota	25	50	53	49	26	26	20	17	19	12	20	2	7
Mississippi	4	11	12	11	16	8	7	8	15	9	4	0	1
Missouri	26	47	26	51	46	23	19	14	18	13	13	3	1
Montana	1	8	7	3	8	13	6	4	11	6	12	0	1
Nebraska	14	25	26	38	46	14	13	12	11	12	25	4	3
Nevada	0	4	0	0	2	1	0	0	0	0	0	0	0
New Hampshire	5	8	9	4	4	5	5	1	2	1	4	0	0
New Jersey	9	12	16	28	21	13	18	6	16	16	15	1	1
New Mexico	2	5	2	5	6	6	3	8	6	3	4	0	0
New York	16	35	23	39	25	29	27	9	21	7	14	1	2
North Carolina	16	6	16	16	13	9	5	1	6	0	6	2	1
North Dakota	1	4	5	3	8	9	10	9	10	9	26	6	1
Ohio	21	49	47	63	41	29	17	9	21	9	9	1	4
Oklahoma	12	15	9	24	18	16	20	17	12	6	12	1	2
Oregon	3	2	4	5	4	2	4	3	2	2	1	0	1
Pennsylvania	23	62	67	69	56	38	36	20	30	13	10	1	0
Rhode Island	0	1	2	1	0	0	1	0	0	0	0	0	0
South Carolina	5	9	6	10	26	9	10	5	3	3	2	2	0
South Dakota	3	5	7	7	9	5	12	5	16	6	14	3	1
Tennessee	11	28	27	21	20	11	10	8	8	4	3	0	3
Texas	20	35	41	52	57	84	54	36	61	46	47	12	7
Utah	0	5	5	4	5	6	4	0	1	1	4	0	0
Vermont	2	5	2	6	4	2	3	1	1	3	3	0	0
Virginia	18	32	29	20	22	18	8	2	7	1	3	0	4
Washington	5	7	5	9	16	2	4	6	5	1	4	0	1
West Virginia	14	13	15	9	22	10	7	3	9	6	6	1	1
Wisconsin	39	44	65	61	49	66	42	29	22	29	32	4	2
Wyoming	1	5	3	5	1	5	2	7	3	0	1	0	0
Puerto Rico	1	1	0	0	0	0	0	0	0	0	0	0	0
United States	524	888	943	1,076	1,157	900	607	385	564	357	482	65	88

Table 7

Eligible Loans, Net Loan Losses, and Number of Commercial Banks by Percent Distribution of Actual Losses and by Size of Bank, End of Calendar Year 1961

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Eligible Loans	$1,823,924	$5,872,772	$7,315,497	$10,686,360	$14,581,330	$23,388,113	$51,689,278	$115,357,274
Net Loan Losses ...	$ 3,115	$ 10,103	$ 12,313	$ 19,049	$ 26,108	$ 35,170	$ 78,931	$ 184,789
Number of Banks with Actual Losses								
.09% or Less	1,925	2,336	1,271	819	364	113	22	6,850
.10 to .24%	650	895	635	458	205	82	29	2,954
.25 to .99%	538	766	420	277	118	41	9	2,169
1.00 to 1.99%	192	169	64	35	13	1	0	474
2.00 to 2.99%	43	42	20	9	4	0	1	119
3.00 to 3.99%	15	18	5	4	2	0	0	44
4.00 to 4.99%	14	3	2	2	0	0	0	21
5.00% and Over	28	19	10	5	3	2	0	67

This indicates that the effects of a change in the present reserve formula will not have very great geographic implications.

The ceilings allowed by present regulations may be contrasted with the recent loss experience of commercial banks. Over the 3 years 1961-1963, there have been variations in aggregate net losses of the insured commercial banks responding to the Treasury survey (see Tables 7, 8, and 9). In 1961, these losses were $185 million; in 1962, $165 million; and in 1963, $236 million. Over this period, net losses rose by $52 million, while eligible loans rose by $29,349 million to $144,706 million.

The ratio of net loan losses to either gross loans, or eligible loans, has been both low and fairly stable in the post-World War II period, as shown in Table 10. The ratio to eligible loans in the years 1961, 1962, and 1963, has averaged .15 percent for all insured commercial banks (see Table 11). Within this 3 year average, there are some deviations. Medium-sized banks ($10–$100 million deposits) had loss ratios of .18 percent, followed by .17 percent for small banks (less than $10 million in deposits). The largest banks, with deposits of over $500 million, had a loss ratio to eligible loans of .13 percent.

Data on losses of insured commercial banks over the past thirty years are shown in Table 10. In the last 15 years, the ratio of net losses to gross loans has ranged between .05 percent (1952) and .17 percent (1960). In the mid-1940's, banks actually had net recoveries.

The variation in losses by states is shown in Tables 12, 13, and 14. The ratio of net losses to eligible loans was .2 percent for the United States in 1961; .1 percent in 1962; and .2 percent in 1963. The variations, by states, in 1961 included .4 percent for New Mexico and Florida, .3 percent for Mississippi, Alaska, Arizona, Oklahoma; in 1962, .5 percent for New Mexico, and .4 percent for Alaska; and in 1963, .4 percent for Okla-

Table 8

Eligible Loans, Net Loan Losses, and Number of Commercial Banks by Percent Distribution of Actual Losses and by Size of Bank, End of Calendar Year 1962

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Eligible Loans	$1,781,831	$6,191,074	$8,103,320	$12,243,138	$17,054,985	$26,483,415	$57,700,462	$129,558,224
Net Loan Losses	$ 3,246	$ 10,215	$ 13,807	$ 20,434	$ 26,079	$ 35,590	$ 55,226	$ 164,594
Number of Banks with Actual Losses								
.09% or Less	1,743	2,349	1,341	912	423	127	30	6,925
.10 to .24%	599	956	692	525	230	90	29	3,121
.25 to .99%	576	767	463	279	104	27	4	2,220
1.00 to 1.99%	156	158	81	30	12	3	0	440
2.00 to 2.99%	45	32	15	2	4	1	0	99
3.00 to 3.99%	20	13	3	4	1	0	0	41
4.00 to 4.99%	10	3	3	6	0	0	0	22
5.00% and Over	22	15	8	4	2	2	0	53

Table 9

Eligible Loans, Net Loan Losses, and Number of Commercial Banks by Percent Distribution of Actual Losses and by Size of Bank, End of Calendar Year 1963

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Eligible Loans	$1,803,034	$6,675,043	$9,035,731	$13,919,983	$19,781,629	$29,156,723	$64,334,290	$144,706,425
Net Loan Losses	$ 2,707	$ 11,261	$ 14,457	$ 27,167	$ 38,407	$ 43,401	$ 99,003	$ 236,402
Number of Banks with Actual Losses								
.09% or Less	1,781	2,384	1,439	929	431	129	26	7,119
.10 to .24%	587	1,004	688	567	250	89	33	3,218
.25 to .99%	484	796	547	344	153	36	7	2,367
1.00 to 1.99%	132	132	63	52	16	1	1	397
2.00 to 2.99%	35	25	10	4	4	2	0	80
3.00 to 3.99%	15	10	1	1	1	0	0	28
4.00 to 4.99%	9	5	4	5	2	0	0	25
5.00% and Over	8	13	13	4	2	1	0	41

homa and Alaska, .3 percent for New Mexico, Florida, and Colorado. With these few exceptions, there is very little regional variation.

It may be of interest to compare loan loss ratios with loan-deposit ratios. In each of these 3 years 1961-1963, loan losses as a percent of eligible loans were greatest for those banks with loan-deposit ratios of over 70 percent—in 1961, .20 percent; in 1962, .17 percent; and in 1963, .22 percent (see Tables 15, 16, and 17). Banks with loan-deposit ratios of less than 30 percent had loan losses as a percent of eligible loans of .14 percent in 1961, .12 percent in 1962, and .14 percent in 1963.

II. *Alternative Loan Loss Reserve Plans*

There have been many proposals for change in the present formula. Most of these proposals have in common the principle of using an industry-wide standard rather than the experience of individual banks.[18] The Treasury study has esti-

[18] There have been some suggestions that the present system be retained, but the amount of allowable transfers increased (say to five times the average annual loss rate).

Table 10

Net Loan Losses, Gross Loans, and Ratio of Net Losses to Gross Loans, Insured Commercial Banks, Annually, 1934-63

(Dollar Amounts in Millions)

End of Year	Net Losses	Gross Loans	Ratio of Net Losses to Gross Loans (percent)
1934	$500.0	$ 14,613.9	3.421
1935	236.9	14,718.7	1.610
1936	139.7	15,964.9	.875
1937	51.7	16,749.7	.309
1938	93.7	16,024.3	.585
1939	70.6	16,866.0	.419
1940	47.8	18,397.8	.260
1941	32.9	21,262.2	.155
1942	12.1	18,906.9	.064
1943	* 10.4	18,843.5	* .055
1944	* 14.1	21,354.8	* .066
1945	* 11.1	25,768.7	* .043
1946	* 3.2	30,740.0	* .010
1947	52.7	37,592.0	.140
1948	28.3	42,387.8	.067
1949	59.3	43,046.7	.138
1950	28.8	52,481.7	.055
1951	34.9	58,184.4	.060
1952	34.7	64,728.2	.053
1953	58.9	68,227.5	.086
1954	44.4	71,412.3	.062
1955	49.4	83,628.1	.059
1956	92.1	91,704.6	.100
1957	71.6	95,577.0	.075
1958	61.1	100,086.8	.061
1959	53.4	112,866.6	.047
1960	206.2	119,877.8	.172
1961	190.0	127,413.9	.149
1962	167.2	142,717.6	.117
1963	238.3	158,928.2	.150

* Net recoveries.
Source: **Annual Reports** of the Federal Deposit Insurance Corporation.

Table 11

Losses on Loans as Percent of Eligible Loans of Insured Commercial Banks, Annually, Calendar 1961-1963

Year	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	All Banks
1961	.17	.17	.17	.18	.18	.15	.15	.16
1962	.18	.16	17	.17	.15	.13	.10	.13
1963	.15	.17	.16	.20	.19	.15	.15	.16
Average for 1961-63	.17	.17	.17	.18	.18	.14	.13	.15

Table 12

Eligible Loans, Net Loan Losses, Ratio of Net Losses to Eligible Loans, and Percent Distribution of Actual Losses, by States, End of Calendar Year 1961

(Dollar Amounts in Thousands)

State	Eligible Loans	Net Loan Losses	Ratio of Net Losses to Eligible Loans (percent)	Number of Banks with Actual Losses							
				.09% or Less	.10 to .24%	.25 to .99%	1.00 to 1.99%	2.00 to 2.99%	3.00 to 3.99%	4.00 to 4.99%	5.00% and Over
Alabama	$ 1,013,078	$ 1,708	.2	86	71	57	16	1	1	1	2
Alaska	80,737	241	.3	2	1	4	0	0	0	0	0
Arizona	675,863	2,145	.3	5	2	2	0	0	0	0	0
Arkansas	578,765	1,020	.2	118	48	50	9	6	1	0	0
California	12,811,112	21,820	.2	56	33	15	1	0	0	0	2
Colorado	1,080,605	2,108	.2	50	47	49	13	3	0	0	1
Connecticut	1,244,325	1,640	.1	23	19	8	2	0	0	0	0
Delaware	362,341	238	.1	14	3	1	0	0	0	0	0
Dist. of Col.	979,971	1,805	.2	7	3	3	0	0	0	0	2
Florida	1,948,466	7,870	.4	126	66	81	24	7	1	0	2
Georgia	1,523,174	3,256	.2	166	102	68	11	4	3	3	3
Hawaii	379,433	411	.1	3	4	0	0	0	0	0	0
Idaho	256,928	420	.2	12	3	7	3	1	0	0	0
Illinois	8,347,920	9,235	.1	583	194	146	21	3	2	3	6
Indiana	2,038,150	4,400	.2	233	121	56	14	1	0	0	3
Iowa	1,486,318	2,049	.1	431	100	86	18	3	1	0	2
Kansas	994,952	1,446	.1	287	126	116	35	11	3	1	3
Kentucky	1,096,164	1,645	.2	194	77	54	5	3	0	0	2
Louisiana	1,094,274	2,616	.2	90	35	45	12	3	1	0	3
Maine	360,973	523	.1	17	12	9	2	0	0	0	0
Maryland	1,051,815	2,013	.2	81	21	8	0	0	0	0	0
Massachusetts	3,130,913	5,191	.2	73	51	19	1	0	0	0	0
Michigan	3,911,828	5,878	.2	205	92	49	5	3	0	0	2
Minnesota	1,958,976	2,533	.1	434	145	77	15	2	2	0	3
Mississippi	520,680	1,556	.3	87	40	42	13	4	3	0	1
Missouri	2,688,333	3,257	.1	363	126	82	24	5	2	1	2
Montana	329,220	471	.1	60	30	22	4	1	0	0	3
Nebraska	876,427	697	.1	234	73	64	11	2	2	1	2
Nevada	229,502	338	.1	3	1	3	0	0	0	0	0
New Hampshire	237,932	292	.1	39	11	19	1	0	0	0	0
New Jersey	3,321,975	3,880	.1	130	55	25	4	0	1	0	0
New Mexico	324,975	1,361	.4	15	16	22	2	1	0	0	0
New York	25,963,698	37,297	.1	152	116	57	4	2	1	0	1
North Carolina	1,519,676	2,232	.1	106	33	12	0	1	0	1	0
North Dakota	248,290	250	.1	87	32	26	5	2	0	0	0
Ohio	5,298,963	5,585	.1	342	130	57	12	3	2	0	2
Oklahoma	1,248,276	3,398	.3	143	85	117	24	7	5	1	2
Oregon	933,822	863	.1	16	19	9	2	0	0	0	0
Pennsylvania	7,542,037	11,164	.1	349	160	82	8	1	1	0	0
Rhode Island	544,532	960	.2	2	3	2	1	0	0	0	0
South Carolina	473,057	751	.2	66	31	23	6	1	0	0	1
South Dakota	327,946	385	.1	106	33	22	4	1	0	0	0
Tennessee	1,734,185	1,947	.1	168	72	34	11	1	0	0	2
Texas	5,921,889	16,104	.3	277	247	303	112	29	10	9	9
Utah	502,420	346	.1	22	12	9	0	0	0	0	0
Vermont	231,699	218	.1	30	12	6	0	0	0	0	0
Virginia	1,433,196	2,047	.1	173	59	30	1	1	1	0	1
Washington	1,353,819	1,320	.1	45	22	13	3	0	0	0	2
West Virginia	542,781	818	.2	117	42	15	1	1	1	0	1
Wisconsin	2,192,773	4,049	.2	400	100	51	9	0	0	0	1
Wyoming	177,876	378	.2	17	16	11	5	5	0	0	1
Virgin Islands	9,068	1	.0	1			0	0	0	0	0
Puerto Rico	221,146	618	.3	4	2	1	0	0	0	0	0
United States	$115,357,274	$184,789	.2	6,850	2,954	2,169	474	119	44	21	67

Table 13

Eligible Loans, Net Loan Losses, Ratio of Net Losses to Eligible Loans, and Percent Distribution of Actual Losses, by States, End of Calendar Year 1962

(Dollar Amounts in Thousands)

State	Eligible Loans	Net Loan Losses	Ratio of Net Losses to Eligible Loans (percent)	Number of Banks with Actual Losses							
				.09% or Less	.10 to .24%	.25 to .99%	1.00 to 1.99%	2.00 to 2.99%	3.00 to 3.99%	4.00 to 4.99%	5.00% and Over
Alabama	$ 1,109,489	$ 2,013	.2	95	74	53	11	1	0	2	1
Alaska	77,651	308	.4	1	2	5	0	0	0	0	0
Arizona	845,988	2,079	.2	2	7	1	0	0	0	0	0
Arkansas	654,986	731	.1	133	43	49	11	0	0	0	1
California	14,875,792	21,984	.1	61	34	19	1	2	0	0	1
Colorado	1,198,907	1,816	.2	66	46	49	10	0	1	0	0
Connecticut	1,408,532	1,182	.1	30	17	9	0	0	0	0	0
Delaware	377,741	320	.1	15	1	3	0	0	0	0	0
Dist. of Col.	1,095,590	1,364	.1	9	2	2	1	0	0	0	2
Florida	2,226,291	6,029	.3	147	86	77	13	2	4	1	1
Georgia	1,711,520	2,223	.1	175	108	63	10	3	1	0	3
Hawaii	438,122	309	.1	5	2	0	0	0	0	0	0
Idaho	308,668	376	.1	11	3	10	2	0	0	0	0
Illinois	9,357,478	8,035	.1	587	208	148	30	7	1	1	5
Indiana	2,249,843	3,634	.2	217	114	81	14	1	2	0	2
Iowa	1,664,200	1,869	.1	409	113	102	10	10	4	0	2
Kansas	1,157,531	1,768	.2	289	126	128	32	5	3	2	3
Kentucky	1,203,410	1,565	.1	195	88	47	4	2	1	0	1
Louisiana	1,419,966	3,119	.2	82	45	42	15	4	2	2	2
Maine	397,644	630	.2	17	13	9	1	0	0	0	0
Maryland	1,273,322	1,289	.1	86	17	7	1	0	1	0	0
Massachusetts	3,367,234	6,361	.2	65	56	27	2	1	1	0	0
Michigan	4,464,005	6,878	.2	215	89	45	10	0	0	0	1
Minnesota	2,213,512	2,964	.1	414	153	95	14	5	2	2	1
Mississippi	594,701	1,001	.2	79	55	42	9	4	0	0	1
Missouri	2,990,065	2,606	.1	353	140	94	15	2	0	0	3
Montana	374,596	594	.2	53	36	18	7	2	1	2	2
Nebraska	1,018,795	1,280	.1	237	64	71	16	3	1	0	2
Nevada	294,578	577	.2	4	2	1	0	0	0	0	0
New Hampshire	267,659	230	.1	41	18	9	1	0	1	0	0
New Jersey	3,764,695	4,433	.1	122	63	34	3	0	0	0	1
New Mexico	378,007	1,711	.5	18	14	18	8	2	0	0	0
New York	28,450,535	26,114	.1	175	109	40	6	2	1	0	0
North Carolina	1,741,430	1,090	.1	108	36	8	1	0	0	0	0
North Dakota	270,088	336	.1	88	30	27	7	1	0	0	0
Ohio	6,004,193	6,408	.1	326	147	65	8	2	0	1	0
Oklahoma	1,372,829	2,128	.2	160	103	98	20	6	1	0	2
Oregon	1,082,827	919	.1	19	16	7	3	0	1	0	0
Pennsylvania	8,260,920	8,574	.1	380	138	73	10	2	0	0	0
Rhode Island	594,839	531	.1	3	3	2	0	0	0	0	0
South Carolina	536,255	823	.2	68	34	24	3	1	1	0	0
South Dakota	395.985	446	.1	103	40	23	3	1	0	0	0
Tennessee	1,946,544	2,857	.1	161	73	46	4	0	2	2	1
Texas	6,645,453	15,420	.2	314	261	306	99	24	7	6	8
Utah	568,216	388	.1	19	15	9	0	0	1	0	0
Vermont	265,111	219	.1	27	15	4	1	1	0	0	0
Virginia	1,658,775	1,527	.1	162	72	27	4	1	0	0	3
Washington	1,483,530	1,295	.1	54	17	14	3	0	0	0	1
West Virginia	599,712	722	.1	115	41	16	4	1	1	0	2
Wisconsin	2,427,126	2,413	.1	388	114	55	8	1	0	1	0
Wyoming	201,108	559	.3	16	17	17	5	0	0	0	1
Virgin Islands	11,528	0	.0	1	0	0	0	0	0	0	0
Puerto Rico	260,706	550	.2	5	1	1	0	0	0	0	0
United States	$129,558,224	$164,597	.1	6,925	3,121	2,220	440	99	41	22	53

Table 14

Eligible Loans, Net Loan Losses, Ratio of Net Losses to Eligible Loans, and Percent Distribution of Actual Losses, by States, End of Calendar Year 1963

(Dollar Amounts in Thousands)

State	Eligible Loans	Net Loan Losses	Ratio of Net Losses to Eligible Loans (percent)	Number of Banks with Actual Losses							
				.09% or Less	.10 to .24%	.25 to .99%	1.00 to 1.99%	2.00 to 2.99%	3.00 to 3.99%	4.00 to 4.99%	5.00% and Over
Alabama	$ 1,251,368	$ 2,691	.2	95	77	52	13	2	0	1	2
Alaska	92,763	397	.4	2	3	2	1	0	0	0	0
Arizona	980,899	2,924	.3	3	5	4	0	0	0	0	0
Arkansas	767,946	802	.1	134	51	43	8	2	0	0	0
California	17,091,229	33,242	.2	72	43	22	7	1	1	1	0
Colorado	1,374,011	3,550	.3	77	35	62	17	1	1	1	0
Connecticut	1,649,753	3,235	.2	29	20	8	1	0	0	0	0
Delaware	407,697	423	.1	12	6	2	0	0	0	0	0
Dist. of Col.	931,759	1,026	.1	8	3	3	0	0	0	0	0
Florida	2,640,689	7,665	.3	167	101	92	14	2	2	0	4
Georgia	1,963,599	3,423	.2	182	112	62	8	3	1	0	2
Hawaii	477,128	433	.1	4	1	2	0	0	0	0	0
Idaho	346,092	362	.1	11	10	4	1	1	0	0	0
Illinois	10,575,522	14,176	.1	587	210	164	28	5	3	0	4
Indiana	2,466,940	4,686	.2	224	118	72	13	2	1	0	2
Iowa	1,816,633	1,817	.1	430	113	97	11	1	1	1	3
Kansas	1,280,551	1,772	.1	282	143	129	25	8	1	2	1
Kentucky	1,337,947	1,084	.1	204	77	49	6	3	1	0	1
Louisiana	1,538,099	3,930	.3	88	46	47	10	0	3	1	2
Maine	422,588	1,001	.2	11	17	12	0	0	0	0	0
Maryland	1,527,069	734	.0	86	19	12	0	0	0	0	0
Massachusetts	3,649,997	8,927	.2	54	50	46	4	1	0	2	0
Michigan	5,067,147	5,438	.1	198	103	56	6	0	0	0	1
Minnesota	2,409,186	3,202	.1	420	148	105	18	4	1	1	2
Mississippi	676,772	1,180	.2	90	53	38	7	3	0	0	1
Missouri	3,333,685	4,128	.1	375	121	106	11	4	1	0	4
Montana	428,535	716	.2	58	37	23	3	0	1	0	1
Nebraska	1,119,780	915	.1	252	87	63	9	1	3	1	1
Nevada	333,511	467	.1	3	3	1	0	0	0	0	0
New Hampshire	302,114	401	.1	37	22	14	0	0	0	0	0
New Jersey	4,244,020	4,827	.1	130	64	34	3	0	0	1	0
New Mexico	442,192	1,334	.3	15	20	24	1	1	0	0	0
New York	30,742,696	62,231	.2	133	128	65	6	3	0	1	0
North Carolina	2,006,849	1,459	.1	113	28	13	1	0	0	0	0
North Dakota	309,406	143	.0	96	32	22	5	0	0	0	0
Ohio	6,566,126	6,262	.1	342	123	70	12	0	1	1	1
Oklahoma	1,529,613	5,618	.4	149	110	114	22	4	0	0	1
Oregon	1,256,100	1,560	.1	26	10	12	0	0	0	1	0
Pennsylvania	9,235,989	11,340	.1	371	145	84	8	1	1	0	0
Rhode Island	632,577	532	.1	4	3	1	0	0	0	0	0
South Carolina	615,535	668	.1	76	35	17	6	0	0	0	0
South Dakota	453,574	333	.1	118	29	21	3	0	0	1	0
Tennessee	2,160,365	3,404	.2	168	77	35	5	2	0	1	1
Texas	7,461,550	13,987	.2	350	291	318	83	24	5	7	2
Utah	651,643	816	.1	25	9	14	2	0	0	0	0
Vermont	299,135	495	.2	29	12	7	0	0	0	0	0
Virginia	2,244,715	2,549	.1	178	65	34	1	0	0	1	1
Washington	1,686,622	1,477	.1	53	20	16	2	0	0	0	1
West Virginia	673,301	797	.1	101	59	13	7	0	0	0	1
Wisconsin	2,682,490	1,022	.0	423	97	42	8	1	0	0	2
Wyoming	223,749	244	.1	20	23	19	1	0	0	0	0
Virgin Islands	14,339	16	.1	0	1	0	0	0	0	0	0
Puerto Rico	312,830	544	.2	4	3	0	0	0	0	0	0
United States	$144,706,425	$236,405	.2	7,119	3,218	2,367	397	80	28	25	41

Table 15

Eligible Loans, Net Loan Losses, Loan Losses as a Percent of Eligible Loans, and Distribution of Number of Banks by Percent of Actual Losses to Eligible Loans, by Loan/Deposit Ratio, End of Calendar Year 1961

(Dollar Amounts in Thousands)

Item	Loan/Deposit Ratio (percent)						
	Under 30	30-40	40-50	50-60	60-70	Over 70	Total
Eligible Loans	$1,726,383	$7,629,365	$34,572,233	$56,266,600	$13,800,533	$1,362,160	$115,357,274
Net Loan Losses	$ 2,357	$ 11,763	$ 56,305	$ 93,607	$ 18,073	$ 2,684	$ 184,789
Loan Losses as Percent of Eligible Loans	.14	.15	.16	.17	.13	.20	.16
Number of Banks with Actual Losses of:							
.09% or Less	780	1,408	2,132	1,680	662	188	6,850
.10 to .24%	237	515	982	783	354	83	2,954
.25 to .99%	178	432	712	554	227	66	2,169
1.00 to 1.99%	67	99	142	95	47	24	474
2.00 to 2.99%	22	18	26	38	9	6	119
3.00 to 3.99%	4	8	17	12	3	0	44
4.00 to 4.99%	6	4	8	1	1	1	21
5.00% and Over	11	13	24	11	6	2	67

mated the allowable transfers, and hence the revenue loss to the Treasury, of several of these alternatives. The amount of allowable transfers under these alternatives are shown in Table 18. All of these figures assume no increase in the amount of eligible loans. That is, these are the amounts that may be added to reserve accounts based on the volume of loans outstanding at the end of 1963. An increase in loans would, of course, allow larger transfers with given loan loss reserve ratios.

Table 18 indicates that under the present system tax-free transfers of about $438 million can be made in the next three years by the 8,036 banks using the reserve method. This figure does not measure the full effect of the present system, since, over time, we can expect more banks to make use of the reserve method. This table also shows the full potential of the present system, assuming that all insured commercial banks adopt the reserve method, and assuming that the average loss ratio for these banks is the same as for the banks now using the reserve method.[19] The figure of $679 million, then, is an estimate of the maximum tax-free transfers that could be made under the present reserve system. This appears to be a logical standard with which to compare the revenue implications of other proposals.

The alternative proposals covered by Table 18 include six plans involving a ceiling stated as a flat percentage of eligible loans, two plans involving a higher reserve for small banks, and one plan with reserves based on the loan-deposit ratio of the bank using the reserve method.

With any given ceiling, the total amount of revenue loss to the Treasury is unaffected by the number of years in

[19] This latter assumption appears reasonable. On the one hand, it might be expected that many of the banks which do not use the reserve method fail to do so because their loss experience would allow them only a small reserve. On the other hand, most of the banks not using the reserve method are small, and small banks tend to have a higher allowable ceiling than larger banks.

Table 16

Eligible Loans, Net Loan Losses, Loan Losses as a Percent of Eligible Loans, and Distribution of Number of Banks by Percent of Actual Losses to Eligible Loans, by Loan/Deposit Ratio, End of Calendar Year 1962

(Dollar Amounts in Thousands)

Item	Loan/Deposit Ratio (percent)						
	Under 30	30-40	40-50	50-60	60-70	Over 70	Total
Eligible Loans	$1,289,310	$5,663,518	$23,536,973	$57,452,327	$37,769,935	$3,846,161	$129,558,224
Net Loan Losses	$ 1,554	$ 8,419	$ 30,804	$ 70,091	$ 47,275	$ 6,452	$ 164,594
Loan Losses as Percent of Eligible Loans	.12	.15	.13	.12	.13	.17	.13
Number of Banks with Actual Losses of:							
.09% or Less	630	1,303	2,026	1,819	866	281	6,925
.10 to .24%	194	502	954	892	467	112	3,121
.25 to .99%	158	391	635	631	295	110	2,220
1.00 to 1.99%	33	77	129	130	47	24	440
2.00 to 2.99%	14	14	25	30	12	4	99
3.00 to 3.99%	5	6	9	12	4	5	41
4.00 to 4.99%	2	5	6	7	1	1	22
5.00% and Over	7	7	14	14	9	2	53

Table 17

Eligible Loans, Net Loan Losses, Loan Losses as a Percent of Eligible Loans, and Distribution of Number of Banks by Percent of Actual Losses to Eligible Loans, by Loan/Deposit Ratio, End of Calendar Year 1963

(Dollar Amounts in Thousands)

Item	Loan/Deposit Ratio (percent)						
	Under 30	30-40	40-50	50-60	60-70	Over 70	Total
Eligible Loans	$1,045,857	$4,776,798	$18,292,051	$44,314,933	$68,175,403	$8,101,382	$144,706,425
Net Loan Losses	$ 1,509	$ 6,052	$ 25,106	$ 73,920	$ 111,814	$ 18,001	$ 236,402
Loan Losses as Percent of Eligible Loans	.14	.13	.14	.17	.16	.22	.16
Number of Banks with Actual Losses of:							
.09% or Less	580	1,143	1,975	1,917	1,015	489	7,119
.10 to .24%	147	441	839	978	604	209	3,218
.25 to .99%	127	317	649	680	427	167	2,367
1.00 to 1.99%	30	55	114	111	53	34	397
2.00 to 2.99%	10	13	17	22	12	6	80
3.00 to 3.99%	3	4	7	9	2	3	28
4.00 to 4.99%	2	3	5	11	3	1	25
5.00% and Over	7	4	16	7	4	3	41

Table 18

Allowable Transfers Under Bad Debt Reserve Plans

(Dollar Amounts in Thousands)

Bad Debt Reserve Plan	No. of Banks	Total Eligible Loans	Ceiling	Reserve for Bad Debt Established	Transfers Needed to Reach Ceiling
Present System, Banks Now Using	8,036	$135,043,352	$3,388,100	$2,998,533	$ 437,587
Present System, All Banks	13,275	144,706,425	3,629,686	2,998,533	679,172
5% Ceiling, 5 Years	13,275	144,706,425	7,235,354	2,998,533	4,308,754
5% Ceiling, 3 Years	13,275	144,706,425	7,235,354	2,998,533	4,308,754
3% Ceiling, 5 Years	13,275	144,706,425	4,341,195	2,998,533	1,678,361
3% Ceiling, 3 Years	13,275	144,706,425	4,341,195	2,998,533	1,678,361
2.5% Ceiling, 3 Years	13,275	144,706,425	3,617,681	2,998,533	1,131,789
5% Ceiling, 1 Year	13,275	144,706,425	723,530	2,998,533	61,933
3% Ceiling up to $5 Million, Then 2%, 3 Years	13,275	144,706,425	3,218,013	2,998,533	935,630
4% Ceiling up to $5 Million, Then 2%, 3 Years	13,275	144,706,425	3,541,897	2,998,533	1,203,844
Loan/Deposit Ratio Formula, 3 Years	13,275	144,706,425	1,877,701	2,998,533	263,133

which the ceiling can be reached; but as the period is lengthened, say from three to five years, the losses are pushed further into the future.

Plans calling for a ceiling equal to 5 percent of eligible loans would allow tax-free transfers equal to over $3.6 billion more than the maximum under the present system. At an assumed marginal tax rate of 48 percent on corporate income, this would involve a revenue loss to the Treasury of $1.7 billion as compared with the present system if used by all banks (see Table 19). The effective tax rates paid by commercial banks in recent years have been significantly below 48 percent. In 1963, for example, Federal taxes amounted to 33.5 percent of net income before taxes (see Tables 20, 21, and 22). The major reason for this difference is that commercial banks are able to treat losses on securities as ordinary losses, and gains on securities as capital gains. Moreover, a significant proportion of the income of commercial banks is derived from tax-exempt securities. In addition, many banks have income of less than $25,000. For purposes of estimating revenue loss from a change in regulations, however, the marginal rate (48%) is the relevant one.

The issue of revenue loss is somewhat complicated. Some bankers claim that there is no long-run revenue loss since the reserve can be used for no purpose except to absorb actual losses. Therefore, they argue, this is merely a deferral of taxes. However, evidence indicates that the banking system is not likely to experience losses large enough to deplete reserves of the magnitude now being accumulated. Thus, most of the deferral of taxes is likely to be perpetual, and, of course, a continued deferral of taxes has the same effect as a tax reduction. The

Table 18 (continued)

Allowable Transfers Under Bad Debt Reserve Plans

(Dollar Amounts in Thousands)

Bad Debt Reserve Plan	Estimated Allowable Transfers 1964	Estimated Allowable Transfers 1965	Estimated Allowable Transfers 1966	Estimated Allowable Transfers 1967	Estimated Allowable Transfers 1968	Total 5 Years
Present System, Banks Now Using	$ 339,346	$ 80,652	$ 17,589	$ 0	$ 0	$ 437,587
Present System, All Banks	419,872	161,177	98,124	0	0	679,172
5% Ceiling, 5 Years	1,371,411	1,258,966	980,784	528,478	169,115	4,308,754
5% Ceiling, 3 Years	2,224,752	1,618,551	465,450	0	0	4,308,754
3% Ceiling, 5 Years	644,584	481,549	320,411	153,269	78,549	1,678,361
3% Ceiling, 3 Years	980,728	528,502	169,131	0	0	1,678,361
2.5% Ceiling, 3 Years	666,461	338,921	126,407	0	0	1,131,789
.5% Ceiling, 1 Year	61,933	0	0	0	0	61,933
3% Ceiling up to $5 Million, Then 2%, 3 Years	527,232	274,905	133,491	0	0	935,630
4% Ceiling up to $5 Million, Then 2%, 3 Years	650,856	371,393	181,594	0	0	1,203,844
Loan/Deposit Ratio Formula, 3 Years	136,522	77,640	48,971	0	0	263,133

popularity of rapid depreciation techniques which involve only a short-term tax deferral is evidence of the taxpayers' desire to defer tax payments.

Of course, revenue effects should not be the only, or even the most important, consideration in tax policy. Since the accepted functions of commercial banks involve risk-taking, the existence of substantial bad debt reserves may enable banks to perform these functions more effectively. Economic growth may be hindered if banks take too cautious a view of their investment position. The proper social test is whether the beneficial effects of more aggressive banking are worth the revenue loss.

A comparison of Tables 2 and 3 shows that in every size class, banks using the reserve method have a higher ratio of loans to deposits than banks not using the reserve method. Table 23 shows that a majority of banks with loan-deposit ratios of under 40 percent do not use the reserve method. This is not true of any of the classes with higher loan-deposit ratios. Of course, large banks tend to have higher loan-deposit ratios than small banks (see Table 24).

Proposals other than the 5 percent reserve plan involve a smaller revenue loss. A 3 percent reserve would involve a revenue loss of under $500 million as compared with the present system if used by all banks.[20] Although the average reserve ceiling under the present system is 2.5 percent, this reserve ceiling would result in a revenue loss of a little over

[20] In 1958 it was estimated that a change to a 3 percent reserve ceiling would result in a revenue loss of $277 million (at a 48 percent tax rate). The increase is due mainly to the increase in loans since 1958.

Table 19

Revenue Losses under Alternative Bad Debt Reserve Plans

(Dollar Amounts in Thousands)

Bad Debt Reserve Plan	Revenue Loss if Income Is Taxed at 48 Percent
Present System, Banks Now Using	$ 210,042
Present System, All Banks	326,003
5% Ceiling, 5 Years	2,068,202
5% Ceiling, 3 Years	2,068,202
3% Ceiling, 5 Years	805,614
3% Ceiling, 3 Years	805,614
2.5% Ceiling, 3 Years	543,259
.5% Ceiling, 1 Year	29,728
3% Ceiling Up to $5 Million, Then 2%, 3 Years	449,102
4% Ceiling Up to $5 Million, Then 2%, 3 Years	577,845
Loan/Deposit Ratio Formula, 3 Years	126,304

$200 million. The reason for this is that all banks with ceilings of under 2.5 percent would be allowed to increase their reserves, while those with reserves presently in excess of 2.5 percent of eligible loans would not, it is assumed, be required to reduce their reserves.[21] Thus, over the next few years, there would be a revenue loss, but as loan volume expanded, reserves could be increased at an average of only 2.5 percent of the increase in loans, just as under the present system.

Several proposals have been made which would provide a higher reserve ceiling for smaller banks than for large banks. It should be noted that the present system results in smaller banks having higher ceilings, on average, than the large banks, because of their higher loss experience (see Table 2). One such proposal is for a reserve of 4 percent on the first $5 million of eligible loans, and a reserve of 2 percent on eligible loans over $5 million.[22] As compared with the present system if used by all banks, this would mean a revenue loss over the next three years of about $252 million, although in the long run this would be made up.

This proposal and similar ones (Table 18 shows data on a proposal for a ceiling of 3 percent on the first $5 million of eligible loans and 2 percent thereafter) raise the policy issue of whether small banks should be given special treatment. It has been argued that smaller banks have fewer opportunities for diversification in their portfolios and thus are more subject to concentrated losses. The data on loan losses show that small banks' losses have been somewhat higher than those of large banks. These losses, however, have been small in relation to the reserve ceilings proposed. Moreover, the small banks already have a tax advantage in that their net income is subject to taxes at a lower rate than the large banks. Under the Revenue Act of 1964, corporations will be taxed at a rate of 22 percent on the first $25,000 of taxable income, and 48 percent on income in excess of that, starting in 1965.

A somewhat different approach to loan loss reserves has attracted considerable attention in recent discussions of the problem. It has been suggested that loan loss reserves be related to loan-deposit ratios. This approach has the effect of relating the reserve more closely to the risk inherent in the bank's portfolio. The solvency of a bank with a

[21] It would be possible to require all banks with reserves above the new ceiling to pay income taxes on the excess and transfer the remainder to undivided profits.

[22] See Hearings on Revenue Act of 1963, Senate Committee on Finance, 88th Congress, 1st Sess., 1963, Washington, D.C.: U.S. G.P.O., p.1066.

Table 20

Net Income, Federal Taxes, and Effective Tax Rates of Insured Commercial Banks, by Size of Bank, Calendar 1961

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Net Income before Taxes	$51,610	$160,337	$195,590	$278,847	$403,502	$711,130	$1,530,333	$3,331,350
Federal Taxes	$14,756	$ 47,189	$ 62,668	$ 99,682	$152,571	$287,775	$ 627,915	$1,292,556
Federal Tax as Percent of Net Income before Taxes	28.6	29.4	32.0	35.7	37.8	40.5	41.0	38.8
Number of Banks with Net Income before Taxes below $25,000	2,867	1,036	101	30	0	0	0	4,034
Net Income of Banks with Net Income before Taxes below $25,000	$35,342	$ 16,565	$ 1,228	$ 270	$ 0	$ 0	$ 0	$ 53,405

Table 21

Net Income, Federal Taxes, and Effective Tax Rates of Insured Commercial Banks, by Size of Bank, Calendar 1962

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Net Income before Taxes	$45,656	$160,427	$203,247	$292,586	$396,000	$695,922	$1,424,327	$3,218,165
Federal Taxes	$11,903	$ 43,256	$ 61,066	$ 96,999	$141,333	$267,083	$ 525,990	$1,147,629
Federal Tax as Percent of Net Income before Taxes	26.1	27.0	30.0	33.2	35.7	38.4	36.9	35.7
Number of Banks with Net Income before Taxes below $25,000	2,667	1,044	124	22	3	0	0	3,860
Net Income of Banks with Net Income before Taxes below $25,000	$32,169	$ 17,135	$ 1,356	$ 92	$ 4	$ 0	$ 0	$ 50,755

Table 22

Net Income, Federal Taxes, and Effective Tax Rates of Insured Commercial Banks, by Size of Bank, Calendar 1963

(Dollar Amounts in Thousands)

Item	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Net Income before Taxes	$39,685	$153,103	$207,830	$298,719	$427,227	$708,625	$1,526,867	$3,362,057
Federal Taxes	$10,974	$ 41,413	$ 61,216	$ 95,921	$145,294	$261,742	$ 508,202	$1,124,762
Federal Tax as Percent of Net Income before Taxes	27.7	27.0	29.5	32.1	34.0	36.9	33.3	33.5
Number of Banks with Net Income before Taxes below $25,000	2,553	1,240	131	35	1	0	0	3,960
Net Income of Banks with Net Income before Taxes below $25,000	$28,548	$ 19,025	$ 1,296	$ 265	$ 16	$ 0	$ 0	$ 49,150

Table 23

Number of Insured Commercial Banks Using Bad Debt Reserve Method, by Loan/Deposit Ratio, End of Calendar 1963

Number of Commercial Banks	Loan/Deposit Ratio (percent)						
	Under 30	30-40	40-50	50-60	60-70	Over 70	Total
Using Bad Debt Reserve Method	316	1,053	2,230	2,472	1,412	553	8,036
Not Using Bad Debt Reserve Method	590	927	1,392	1,263	708	359	5,239
Total	906	1,980	3,622	3,735	2,120	912	13,275

loan-deposit ratio of, say, 20 percent is in little danger even if it should suddenly face very large loan losses. On the other hand, a bank with a loan-deposit ratio of 75 percent may face serious problems in the event of large loan losses. Assuming both banks have capital equal to 10 percent of total deposits, it would take loan losses of 50 percent of loans to make the first bank insolvent, while losses of 14 percent would mean insolvency for the second bank.[23]

The loan-deposit ratio approach has the further effect of providing a stimulus to bank lending activity. In the same way that rapid amortization methods and the investment credit are designed to stimulate investment, the loan reserve provisions of the tax regulations could stimulate bank lending. Some economists believe that an increase in bank lending may have a more stimulating effect on economic activity and economic growth than an increase in bank holdings of securities, particularly in periods of less than full employment. Within some limits, the bad debt reserve system could serve as a means of stimulating an activity that is regarded as socially desirable.

The Treasury study of loan loss reserves included a calculation of the revenue effect of one such plan. Under this plan, a reserve of 1.0 percent could be accumulated on loans up to 35 percent of deposits, a reserve of 1.5 percent on the next 10 percentage points of loans, and so on, up to a maximum of a 3.0 percent reserve on loans in excess of a 65 percent loan-deposit ratio. Under this plan, the Treasury would obtain about $200 million more tax revenue from the banking industry than it does under the present system. It should be noted, of course, that a somewhat different version of the same type of plan could be designed so that Treasury revenue would be roughly unchanged.

Revenue considerations, it should be understood, need not be a factor in determining the *type* of bad debt reserve plan to be adopted. Any of the types of plans discussed in this paper could be adopted with rates that would produce any desired effect on Treasury revenue. Thus the revenue implications of any of the *specific* plans discussed here are irrelevant in the choice among: (1) a uniform formula (same percentage ceiling for all banks); (2) a graduated for-

[23] One weakness of this argument is that the bank with the high loan-deposit ratio can usually obtain sufficient capital so that its capital-deposit ratio would be higher than that of a bank with a low loan-deposit ratio. The data show, in fact, that banks with higher loan-deposit ratios tend to have higher capital-deposit ratios also.

Table 24

Loan/Deposit Ratio of Insured Commercial Banks, by Size of Bank, End of Calendar 1963

Loan/Deposit Ratio	Deposit Size in Millions of Dollars							
	Under 2	2-5	5-10	10-25	25-100	100-500	Over 500	Total
Under 30%	320	330	174	63	17	2	0	906
30-39%	485	758	428	225	77	7	0	1,980
40-49%	776	1,232	808	560	197	43	6	3,622
50-59%	724	1,149	785	638	312	105	22	3,735
60-69%	465	602	404	328	198	87	36	2,120
70% and Over	281	298	166	92	58	14	3	912
Total	3,051	4,369	2,765	1,906	859	258	67	13,275

mula (higher ceiling for small banks); or (3) a formula based on loan-deposit ratios.

The matter of equity among commercial banks, and between commercial banks and other corporate taxpayers, clearly calls for a revision of the present system. In evaluating proposed revisions, the primary consideration is to determine the objectives to be sought. This determination involves a decision as to whether to encourage bank lending through tax incentives, and whether to favor one or another class of taxpayers. Whatever course is chosen, the equity desired can be achieved at any given level of Treasury revenue from the commercial banking industry.

► ALLEN F. JUNG

This article presents the results of a first-hand study of home improvement loans by commercial banks and savings and loan associations in the Chicago area.

Terms on Home Improvement Loans

The major purpose of this study was to obtain terms on home improvement loans from financial institutions. The annual value of home-remodeling construction has increased substantially since World War II.[1] The increase in the size of their households has forced many consumers to obtain more spacious quarters. Some have felt that adding to their present home offered a better and/or lower cost solution than moving to a larger house. Attendant with this rise in home remodeling has been a greater demand for financing these improvements. As a result, the field of home-improvement financing has assumed vast proportions.

A high percentage of all home improvement loans for room additions are made by savings and loan associations and commercial banks. A few contractors provide their own finance plans, and a few finance companies make some home improvement loans of this type. Consumers sometimes refinance their mortgages when making extensive home improvements. Those homeowners who do not have a mortgage often make a short term mortgage loan.

Some financial institutions have set up their own financing plans for improvement loans but a majority of this financing is insured by an instrumentality of the Federal government. The Federal Housing Administration, under the authority of Title I of the National Housing Act, insures qualified lending insti-

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[1] The *Survey of Current Business* shows that the value of additions and alterations increased by approximately 450 percent from 1949 to 1959, while new residential non-farm dwelling units increased approximately 135 percent.

tutions against loss on property improvement loans.

There has been little systematic investigation of this important area of finance, and this study was designed to gain information about it. The financial institutions were grouped to measure differences in terms by size of financial institution, and to measure differences in terms between savings and loan associations and commercial banks. Cross tabulations were made to ascertain any differences related to years in business, location, and type of charter held. Savings and loan associations were also tabulated by annual dividend rates. The findings were compared with a previous study of mortgage terms for the same financial institutions. Additional information was gathered at banks about their rates on automobile and personal unsecured loans in order to make comparisons with their home improvement loans.

It was found that almost all banks offered home improvement loans, although only about half of the savings and loan associations offered them. There were some variations in home improvement rates quoted by financial institutions, but a majority of savings and loan associations and banks offered FHA insured loans at identical terms. The data showed that both classes of institutions offered similar rates. Comparisons with a previous mortgage study provided some interesting information, as did data at commercial banks on automobile and unsecured loans.

I. *Method of Investigation and Sample*

This study was conducted through personal contacts with savings and loan associations and commercial banks in Chicago to ascertain finance charges for home improvement loans. The interviewer posed as a homeowner seeking an improvement loan. The same standardized approach was employed on all shopping contacts.[2] The maximum amount that the institution would lend was declared acceptable to the prospective borrower; no financial institution was willing to lend above $5,000. The borrower also indicated a desire for maximum maturity; no financial institution extended maturity beyond 5 years. The data were collected in the form of equal monthly payments for the duration of the loan.

Approximately half of the institutions were contacted by the author in person. A carefully trained, mature interviewer obtained data at the remaining institutions. Information at the latter institutions was also procured by the author by telephone. Identical data were collected by the other interviewer and the telephoning author at every institution contacted by both.

The sample was selected from savings and loan associations and banks in Chicago.[3] It included all savings and loan associations with share capital over $40 million, one-fourth of those with share capital between $10 million and $40 million, and one-eighth of those with share capital under $10 million but over $1 million. All banks with deposits over $100 million, one-half of the banks with deposits between $40 million and $100 million, and one-fourth of the banks with deposits under $40 million were contacted. In all, 32 savings and loan associations and 33 commercial banks were visited.

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[2] For a further description of the shopping procedure, see Appendix.

[3] The same financial institutions that had been priced earlier for mortgage loans were contacted for home improvement loans. For a further elaboration, see Allen F. Jung, "Terms on Conventional Mortgage Loans on Existing Houses," *Journal of Finance*, Volume XVII, No. 3, September 1962.

II. *Findings*

A. Terms at Savings and Loan Associations

About half (17 of 32) of the savings and loan associations contacted made improvement loans. (See Table 1.) All associations would lend a maximum of $3,500, with three exceptions. One association offered to lend a maximum amount of $5,000, and two offered a maximum amount of $2,500. The maximum maturity at all associations was 5 years.

There was some variability in home improvement rates, but the majority of associations making loans offered FHA terms.[4] Only 5 savings and loan associations offered their own plans; 2 large associations quoted effective rates of 9.6 percent and 8.7 percent, and 2 small associations quoted rates at 11.8 percent. The grand mean for all associations was 9.8 percent. The rate at 10 of the associations offering $3,500 FHA insured loans was 9.1 percent, and the rate was 9.6 percent at the two firms quoting a $2,500 maximum on FHA insured loans.

Failure to offer home improvement credit was not restricted to any group of associations based on size. In each category, almost half of the firms failed to offer loans of this type. Associations with share capital of under $10 million offered an average rate higher (10.3 percent vs. 9.2 percent) than the averages of the other two groups. This was brought about mainly by the fact that two of the five firms used conventional loan plans at a 6 percent add-on rate. Cross tabulations by years in business, location, and type of charter revealed similar differences; the two associations with the 11.8 percent rate had been in business less than 10 years, were located on the south side of Chicago, and operated under a state charter.

The influence of these two associations appears again when firms are classified by dividend rates (see Table 2). The two firms quoting the highest home improvement charges paid a 4 percent dividend on regular share accounts. The 4 percent category offered the highest loan rate, 9.6 percent. The table shows that average loan rates go down as the dividend rate goes up. However, only one association paying 4½ percent offered a home improvement loan, and no association with a dividend rate below 4 percent granted loans of this type. One cannot conclude that there is a clearly marked relationship between improvement loan rates and dividend rates.

B. Terms at Commercial Banks

Thirty-one of the thirty-three banks contacted were willing to make home improvement loans (see Table 3). The maximum amount of money lent by most banks on home improvement loans was $3,500; 6 banks were willing to lend $5,000. The maximum maturity was 5 years, with the exception of 3 banks that restricted the period of repayment to 3 years.[5]

There was some variation in terms offered by banks. However, a majority of the banks offered FHA Title I loans, and at these banks the rate was 9.1 percent. The mean rate charged by banks on improvement loans was 9.5 percent simple annual interest, and the range was 8.3 percent – 13.0 percent. The median

[4] FHA terms approximated 9.1 percent for a loan of $3,500 for 5 years. Simple annual interest for all institutions was computed by the following formula: $R = r(2n)/(n + 1)$; R = actual rate of interest; r = nominal rate of interest per year; n = number of equal monthly installments. This formula was suggested by the Board of Governors of the Federal Reserve System.

[5] All rates were computed by formula as if all loans had 5 year maturity. Instead of multiplying rates for 3 year maturity by 72/37, all nominal rates have been multiplied by 120/61.

for all banks was 9.1 percent, quoted by 24 banks.

Credit life insurance was available at some of the banks, and two included it "free" in the monthly payments they quoted. In these two cases, the cost of credit life insurance has been removed before computing interest rates.[6] One large bank actually offered credit life insurance "free" on an insured FHA loan. The bank evidently feels that doubly insured loans are ideal investments, or it has found that this gives it an advantage in obtaining FHA loans over its competitors, all of whom had identical FHA interest charges. The adjustment for insurance made this rate 8.3 percent, the lowest found.

The banks that offered home improvement loans of $5,000 quite obviously did not use FHA terms. The average rate for the 6 banks willing to lend $5,000 was 11.2 percent, compared with the FHA rate of 9.1 percent. These banks also offered an 11.2 percent rate on a $3,500 loan; thus the reason for the higher rate could not be attributed to any greater risk inherent in a loan of larger size. Assuming that loan officers use the same amount of discretion in making conventional home improvement loans that they use for FHA loans, the profit potential of a non-FHA plan is substantial. The interest charges collected at 11.2 percent on a $3,500 loan with 5 year maturity are approximately $996, compared with approximately $813 on a similar 9.1 percent FHA insured loan. This provides a larger potential gross profit than the apparent $183 difference, if one considers that the lending institution must pay an insurance premium to the FHA on insured loans.

[6] Forty cents per $100 per year on the net proceeds of the loan has been deducted from the charges. Some banks in the United States make credit life insurance available to the consumer at this rate. For a discussion of this subject, see Allen F. Jung, "Credit Life Insurance in Major Cities," *Journal of Insurance*, September 1960.

Since almost all banks quoted FHA rates, all cross classifications of banks by size of deposit, years in business, location, or by type of charter revealed only slight differences. The banks offering rates other than 9.1 percent consisted of central business district (loop) and outlying institutions with national and state charters.

C. Terms at Banks vs. Terms at Savings and Loan Associations

Probably the most significant fact disclosed in a comparison of banks with savings and loan associations is that all but two of the "financial department stores" were willing to grant home improvement credit, while almost half (15 of 32) of the "home lending specialists" were not desirous of extending an improvement loan. Perhaps, mortgage lending has become so specialized that some associations prefer to do nothing else. Improvement loans offer an attractive yield, since the effective rate of interest is higher on these loans than on mortgage loans. On average, the banks offered improvement loans at a slightly lower rate (9.5 percent vs. 9.8 percent) than did associations. Six banks were willing to lend a maximum of $5,000, while only one association matched this amount and two set their maximums at $2,500.

D. Mortgage Terms vs. Home Improvement Terms

Information was gathered relating to terms on conventional mortgage loans at the same banks and savings and loan associations contacted for this study.[7] An interesting comparison concerns the number of these institutions making the two types of loans. As noted above, all banks but two made home improvement loans,

[7] For mortgage rates, see "Terms on Conventional Mortgage Loans on Existing Houses," *op. cit.*

and almost half of the associations did not offer improvement loans. In the case of mortgage loans, all associations but one offered a 75 percent loan to property value for 20 years maturity, while only three banks offered conventional loans at the 75 percent rate. Only slightly over half of the banks offered a conventional mortgage loan at a ratio as high as 60 percent loan to property value, and less than one-third of the banks contacted would extend the term of the contract beyond 15 years.

There was little correlation among financial institutions with respect to offerings above or below average rates in both the mortgage and home improvement field. The bank that quoted the highest improvement rate did not make mortgage loans. The one savings and loan association that did not offer a mortgage loan quoted the maximum improvement rate. At the rates these two firms quoted for improvement loans, 13.0 percent and 11.8 percent respectively, the highest effective rate found on mortgage loans, 6.86 percent, seems small indeed. For those interested in studying this intriguing data further, all banks and savings and loan associations listed individually in Tables 5 and 6 have been assigned the same numbers as they had been assigned in the mortgage study.

E. Home Improvement vs. Automobile and Personal Unsecured Loans

Automobile loans, personal unsecured loans, and home improvement loans are often handled by the same department, commonly called the Consumer Credit Department. Information was also gathered on these two other types of loans (see Table 4). The would-be borrower sought a 36-month automobile loan on a new car, to be repaid in monthly payments, but was willing to accept the maximum maturity a particular bank offered. The amount of the personal unsecured loan was $500 to be repaid over 12 months on an installment basis. The prospective borrower did not attempt to borrow less than $500. Some banks, shown as not making unsecured loans at time of contact, might have been willing to make a personal loan of less than $500. Some bank officers stated that their policies did not permit them to tender unsecured notes. Automobile and personal loan rates have been adjusted for credit life insurance when it was included in the payments. The means for all banks were 9.9 percent for auto loans, 12.9 percent for personal loans and 9.5 percent for home improvement loans. Auto loans ranged from 8.8 percent to 11.7 percent [8] and personal loans from 11.1 percent to 16.6 percent, compared with a range of 8.3 percent to 13.0 percent for home improvement loans. The fact that unsecured loan rates averaged the highest seems reasonable in view of the greater risk involved as a result of the absence of collateral. The slight difference between the average rate for automobile loans and the rate for home improvement loans might seem to indicate that bankers consider automobile credit a risk similar to home improvement credit. However, further study of the rates obtained does not support this position. The net yield to the banks on home improvement loans is less than the 9.5 percent average, because over 75 percent of the banks quoted FHA terms and their yield would be reduced by premiums for FHA insurance. Secondly, of the 30 banks quoting automobile rates, 9 extended them for only 30 months, and 3 for 24 months. This indicates that they do not believe a 36 month automobile loan is a desirable risk.

[8] The author has obtained similar data for bank loans in other major cities. Over 20 banks quoted multiple rates for automobile loans based on maturity. These banks, on average, quoted rates 1 percent lower for 30 months, and 1.9 percent lower for 24 months than they offered for 36 months. All rates for 30 months and 24 months maturity have been adjusted by adding 1 percent and 1.9 percent, respectively.

An inspection of individual banks with respect to rates for the three classes of loans provides some significant information (see Table 5). It must be remembered that the three loans were for different periods of time. A stated rate (almost all rates were stated as add-on rates) will convert to a higher effective rate as the period of time increases.[9] A difference of one tenth of one percent between a home improvement loan and a car loan usually means that the stated rate for each was identical. Bank # 1 was the only bank whose effective rate was higher for a home improvement loan than for a personal loan. However, the stated rate for the personal loan was above the stated rate for the improvement loan. At all banks offering both automobile and personal loans, the automobile rate was below the personal rate. An inspection of all banks offering improvement loans at rates other than FHA terms failed to reveal any consistent pattern. It might be concluded that banks that offer improvement loans at an extreme position from the average do not necessarily follow this policy in respect to automobile and personal loans. It is interesting to note that the two banks unwilling to advance home improvement funds at the time of contact, offered personal loans at the average rate, and automobile loans at the lowest rates found in the study.

III. *Conclusions*

The study did not reveal much variation in the home improvement rates offered at financial institutions, and there was little difference shown in rates quoted by banks and savings and loan associations. When financial institutions are classified by size of assets, it is not apparent that any existent economies of scale produced lower home improvement rates. Possibly, many consumers pay little heed to the magnitude of finance charges, and rate reductions are not effective means of attracting additional business. If economies do exist, and consumers react as suggested above, some firms are able to make abnormal profits on home improvement loans.

No indication of the reasons why some savings and loan associations pay higher dividend rates than others was found in the mortgage study. It was anticipated that the differences in home improvement loan rates might help to explain the differences in dividend rates. They did not. Although many suppositions may be formulated, no real explanation of dividend rate differentials based on loan yields is presently available.

Some loan officers suggested the advantages of an open-end mortgage. The open-end mortgage affords consumers, especially those with a low loan-to-value ratio, an opportunity to gain additional funds at a later date at the original stated rate of interest. The costs of refinancing or opening an open-end mortgage were commonly quoted at about one percent of the amount of additional financing desired. Some firms stated that an open-end mortgage could be refinanced at any time for any reason, and they even suggested that this could serve as an economical source of funds for a new car or a vacation trip, as well as for home improvements. This does represent a lower-cost method of financing these items than usual sources provide.

Rates below those offered on FHA insured loans were not easily found. Only one bank and one association of the 33 and 32 contacted, respectively, offered lower rates. Home improvement loans of more than $3,500 required extensive shopping, and the best prospects appeared to be at commercial banks. Remodeling jobs which required financing above $5,000 ordinarily entailed a mortgage or the refinancing of an existing mortgage.

[9] For example, 5 percent add-on becomes an effective rate of 9.2 percent for one year, 9.7 percent for 3 years, and 9.8 percent for five years.

Appendix

Shopping Procedure

The same standardized approach was employed for all shopping contacts. The investigator had employed an architect to draw plans for an addition to his house and was desirous of a home improvement loan. He always made it known that he was a customer of the financial institution visited. He had a checking account at commercial banks, and a savings account at the savings and loan associations. The loan officer who desired personal information about the prospective borrower found that he was a salesman employed by the same firm for the last 14 years, and that his earnings had varied from $12,000 to $15,000 over the last 5 years. The interviewer had a mortgage balance on his VA loan (4 percent, stated rate) of $5,000, and he had purchased his house new for $15,000 in 1952. His expanding family necessitated additional living space.

Two homes, one in a southwest suburb and one in a northwest suburb, were represented as the investigator's home. These suburbs were Evergreen Park and Niles, Illinois. Both border the city limits of Chicago and are considered very desirable areas for housing. The one closest geographically to the financial institution being priced was the one used in a particular contact. These homes actually existed as described, and both were described identically.

The shopper stated that he was adding two bedrooms and a complete bathroom to the second floor of his five-room house. The home was brick, had a complete basement, and a two-car frame garage. Bids from contractors showed that the price of this addition would approximate $6,000. Although the homeowner could pay for this addition in cash, he was interested in financing as much of it as possible. The institutions willing to lend $5,000 stated that this was the maximum amount that they would grant on a single family dwelling, irrespective of the cost of the improvement.

Table 1

Terms on Home Improvement Loans Quoted by Chicago Savings and Loan Associations

*Maximum Amount at Maximum Maturity**

Share Capital	Number Contacted	Number Offering Loans	Simple Annual Interest Rate		
			Mean	Median (Percent)	Range
Over $40 Million (Large)	11	6	9.2	9.1	8.7–9.6
$10 Million to $40 Million (Medium)	11	6	9.2	9.1	9.1–9.6
Under $10 Million (Small)	10	5	10.3	9.6	9.1–11.8
TOTALS	32	17	9.8	9.1	8.7–11.8

* Fourteen associations quoted $3,500 as the maximum amount they would loan; one association with share capital over $40 million stated $5,000 as the maximum, and one in each of the other two categories stated a $2,500 maximum. The maximum maturity was 5 years for all associations.

Table 2

Terms on Home Improvement Loans Quoted by Chicago Savings and Loan Associations, Classified by Annual Dividend Rates on Regular Share Accounts *

Annual Dividend Rate	Number Contacted	Number Offering Loans	Simple Annual Interest Rate		
			Mean	Median	Range
3½% or Less †	3	0	‡	‡	‡
4%	17	11	9.6	9.1	8.7–11.8
4¼%	7	5	9.3	9.1	9.1–9.6
4½%	5	1	9.1	9.1	9.1–9.1
TOTALS	32	17	9.8§	9.1	8.7–11.8

* Maturity, 5 years. Amount of loan, $3,500, except $5,000 at an association paying a dividend rate of 4%, and $2,500 at one paying 4% and at one paying 4¼%.
† Includes 2 associations paying 3½% and one paying 3%.
‡ No loans available at time of contact.
§ From Table 1.

Table 3

Terms on Home Improvement Loans Quoted by Chicago Banks

*Maximum Amount at Maximum Maturity**

Deposits	Number Contacted	Number Offering Loans	Simple Annual Interest Rate		
			Mean	Median (Percent)	Range
Over $100 Million (Large)	12	12	9.6	9.1	8.3–13.0
$40 Million to $100 Million (Medium)	11	11	9.3	9.1	9.1–11.8
Under $40 Million (Small)	10	8	9.5	9.1	9.1–11.8
TOTALS	33	31	9.5	9.1	8.3–13.0

* Twenty-five banks stated $3,500 as the maximum amount they would lend; six stated $5,000, four large banks and one in each of the other two categories. Maximum maturity was 5 years at 28 banks; three banks, one in each category, limited maturity to 3 years.

Table 4

Terms on Loans Quoted by Chicago Banks

Type of Loan	Number Contacted	Number Offering Loans	Simple Annual Interest Rate		
			Mean	Median (Percent)	Range
Home Improvement Loans	33	31	9.5	9.1	8.3–13.0
Automobile Loans *	33	31	9.9	9.7	8.8–11.7
Personal Unsecured Loans †	33	24	12.9	12.9	11.1–16.6

* Based on a loan for approximately 60% of the retail cost of a new car for maximum maturity. Nineteen banks quoted maximum maturity at 36 months, 9 quoted 30 months, and 3 quoted 24 months. All rates have been converted to simple annual interest as if the time period had been 36 months. Simple interest rates at banks that limited maturity to 30 and 24 months were adjusted as follows: rates at banks with 30 months maturity were raised 1.0 percent, and at banks with 24 months maturity they were raised 1.9 percent.

† Based on a loan of $500 for 1 year.

Table 5

Simple Interest Rates on Loans Quoted by Chicago Banks

(In Percent)

Deposits over $100 million (Large)				Deposits from $40 million to $100 million (Medium)				Deposits Under $40 million (Small)			
Bank #*	H.I. Loans	Auto Loans	Pers. Loans†	Bank #*	H.I. Loans	Auto Loans	Pers. Loans†	Bank #*	H.I. Loans	Auto Loans	Pers. Loans†
1	13.0	10.7	12.9	13	9.1	9.0	12.2	24	9.1	9.7	12.9
2	8.3	9.7	12.9	14	11.8	10.9	16.6	25	9.1	9.7	12.9
3	9.1	‡	‡	15	9.1	9.7	12.9	26	9.1	9.7	12.9
4	9.1	9.0	12.2	16	9.1	9.7	‡	27	‡	8.8§	12.9
5	9.1	10.7	13.1	17	9.1	9.7	12.9	28	9.1	11.6△	12.9
6	9.1	9.7	12.9	18	9.1	10.7§	12.9	29	9.1	8.8	‡
7	11.8	10.7§	12.9	19	9.1	10.0§	14.0	30	9.1	10.7§	‡
8	9.1	‡	‡	20	9.1	11.5	‡	31	9.1	8.8	11.1
9	9.1	11.7§	12.2	21	9.1	8.8§	12.9	32	‡	8.8§	12.9
10	9.8	9.7	12.2	22	9.1	9.1	‡	33	11.8	9.8§	12.9
11	8.7	11.6△	‡	23	9.1	11.6△	‡	Mean	9.5	9.7	12.7
12	9.1	10.4	12.9	Mean	9.3	10.0	13.5	Median	9.1	9.7	12.9
Mean	9.6	10.7	12.7	Median	9.1	9.7	12.9	Range	9.1–	8.8–	11.1–
Median	9.1	9.7	12.9	Range	9.1–	9.0–	12.2–		11.8	11.6	12.9
Range	8.3–	9.0–	12.2–		11.8	11.6	16.6				
	13.0	11.7	13.1								

* These numbers correspond to the numbers assigned to Chicago banks in "Terms on Conventional Mortgage Loans on Existing Houses," op. cit.

† Abbreviations used to represent home improvement loans, automobile loans, and personal unsecured loans.

‡ Did not make the desired loan at time of contact.

§ 30 month maximum maturity at time of contact.

△ 24 month maximum maturity at time of contact.

Table 6

Terms on Home Improvement Loans at Chicago Savings and Loan Associations Expressed in Simple Annual Interest

Large Share Capital (Over $40 Million)		Medium Share Capital ($10 Million to $40 Million)		Small Share Capital (Under $10 Million)	
Number*	Rate (Percent)	Number	Rate (Percent)	Number	Rate (Percent)
1	No loans	12	No loans	23	9.1
2	9.6	13	No loans	24	9.6
3	9.1	14	9.1	25	11.8
4	9.6	15	9.1	26	No loans
5	No loans	16	9.6	27	No loans
6	9.1	17	9.1	28	No loans
7	No loans	18	No loans	29	9.1
8	9.1	19	9.1	30	11.8
9	No loans	20	9.1	31	No loans
10	No loans	21	No loans	32	No loans
11	8.7	22	No loans		
Mean	9.2	Mean	9.2	Mean	10.3
Median	9.1	Median	9.1	Median	9.6
Range	8.7–9.6	Range	9.1–9.6	Range	9.1–11.8

* These numbers correspond to the numbers assigned to Chicago savings and loan associations in "Terms on Conventional Mortgage Loans on Existing Houses," *op. cit.*

► THOMAS R. BEARD

Debt Management: Its Relationship To Monetary Policy, 1951-1962

Since the famous Treasury-Federal Reserve Accord, the relationship between debt management and monetary policy has undergone certain basic changes.[1] In general, three major periods may be distinguished: (1) the 1951-1952 period of the "transition to free markets"; (2) the 1953-1960 era of "free markets"; and (3)

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[1] For the purposes of this paper, debt management is distinguished as clearly as possible from monetary and fiscal policy. All actions of the Federal government which directly affect the composition and terms of the publicly held Federal debt (debt held outside the Federal Reserve and U. S. Government trust funds and agency accounts), whether initiated by the Treasury or by the Federal Reserve, are included within this definition. However, debt management does not involve the size of the debt (which is a matter of fiscal policy) or the net amount of debt bought and sold by the central bank in the conduct of its open market operations (which is a matter of monetary policy). Our definition of debt management does not include so-called non-interest bearing "debt," either in the form of currency held outside the Federal government or non-Federal government deposits at the Federal Reserve banks. Rather, these latter items are related to monetary policy.

A similar definition of debt management has frequently been utilized. See, for example, War-

the most recent period of "twisting" or "nudging." In view of the continuing controversy over the proper role of debt management,[2] it is instructive to review the debt management policies followed and their relationship to monetary policies during each of these three periods. Some tentative conclusions can be drawn concerning the probable impact of debt management in each period.

I. *The Background*

Prior to March 1951, considerations of debt management effectively tied the hands of the monetary authorities. At the end of World War II, it was widely feared that the large war debt might not be held willingly by investors and that debt markets were highly susceptible to destabilizing speculative fluctuations. In some quarters it was feared that instability of security prices would destroy public confidence in the government's credit and undermine investment incentives. These fears at first led to the view that even moderately small increases in interest rates could not be permitted. With the passage of time, the views of Federal Reserve spokesmen changed. While they felt unpegging could take place only gradually, they wished to move steadily in the direction of greater reliance on flexible monetary policy. Treasury officials, however, fought a delaying action.[3]

Continuously pegged long-term interest rates persisted well into the post-war years—long after any legitimate need for rigid pegs had seemingly disappeared. While central bank officials may have been guilty of overemphasizing the extent of debt monetization that took place,[4] effective central bank control over the money supply was greatly hampered.[5] In

ren L. Smith, *Debt Management in the United States*, Study Paper No. 19 for the Joint Economic Committee, Washington, D. C.: Government Printing Office, 1960. By way of contrast, a broader definition which includes non-interest bearing "debt" has recently been suggested by James Tobin, "An Essay on Principles of Debt Management," *Fiscal and Debt Management Policies*, Englewood Cliffs, N. J.: Prentice-Hall, 1963, pp. 143-218.

[2] For a brief summary of alternative views on debt management, see William E. Laird, "The Changing Views on Debt Management," *Quarterly Review of Economics and Business*, III, Autumn, 1963, pp. 7-17.

[3] An excellent account of the evolving positions of Treasury and Federal Reserve officials during the war and early post-war years is found in Henry C. Murphy, *The National Debt in War and Transition*, New York: McGraw-Hill, 1950.

[4] For comments along this line, see Alvin Hansen, "Monetary Policy," *Review of Economics and Statistics*, XXXVII, May 1955, especially pp. 116-117. Kareken has argued that the large scale investor selling of certain maturities which at times did take place—particularly from June 1950, to March 1951—cannot be disassociated from the Treasury-Federal Reserve struggle and the effect of this conflict on market expectations. He has suggested that the actions of the monetary authorities resulted in a more rapid debt monetization than would otherwise have taken place. John H. Kareken, "Monetary Policy and the Public Debt: An Appraisal of Post-War Developments in the U. S. A.," *Kyklos*, X, Fasc. 4, 1957, especially pp. 418-423.

[5] Numerous critical views on pre-Accord monetary-debt management policies can be found in United States Congress, Subcommittee on Monetary, Credit, and Fiscal Policies of the Joint Committee on the Economic Report, *Monetary, Credit, and Fiscal Policies, Hearings, Statements, and Report*, 81st Congress, 1st Session, 1949-1950, and United States Congress, Subcommittee on General Credit Control and Debt Management of the Joint Committee on the Economic Report, *Monetary Policy and the Management of the Public Debt, Their Role in Achieving Price Stability and High Level Employment, Replies, Hearings, and Report*, 82nd Congress, 2nd Session, 1952. These volumes are referred to, respectively, as the Douglas and Patman Documents.

effect, monetary policy was largely relegated to the task of insuring the liquidity of the public debt. The stabilization of government security prices rendered all maturities virtually as liquid as the shortest-term instruments. At the same time, the initiative in changing bank reserves was transferred to holders of government securities.

Finally, in the Accord of March 1951, the advocates of flexible monetary policy were triumphant. This victory, however, was only one step in the gradual process of regaining central bank "independence."

II. *The Transition To Free Markets, 1951-1952*

The first major period following the Accord lasted for roughly two years. During most of this period, the predominant atmosphere was one of uncertainty. The Federal Reserve as well as the Treasury wished to avoid any actions that might precipitate disorderly conditions in the securities market. At the same time, it was widely felt that inflation, rather than depression, was the important danger.

A reconciliation of these conflicting claims on central bank policy was facilitated by a new theory of credit control. In short, the theory had been developed within the Federal Reserve that central bank policy could be an effective stabilizer even though fluctuations in interest rates were moderate.[6] The impact of Federal Reserve policy was said to be transmitted primarily through direct effects on lenders and the "availability of credit," rather than through variations in interest rates or in the money supply. Large-scale central bank operations were unnecessary in an environment characterized by a large and widely held public debt spread over a wide range of maturities. Such a debt facilitated the rapid transmission of credit policies between the various segments of the market. Other institutional developments, such as the growth of non-bank financial institutions characterized by conservative portfolio management, were also seen as giving open market operations a significant impact with relatively small changes in interest rates.[7]

As part of the transition to free markets, the Federal Reserve continued until the last refunding of 1952, its

[6] See, in particular, R. V. Roosa, "Interest Rates and the Central Bank," *Money, Trade, and Economic Growth*, New York: The Macmillan Co., 1951, pp. 270-295, and portions of the testimony of Chairman Martin in *Patman Replies*, pp. 207-632.

[7] For an analytical discussion of this theory, including the so-called "locking-in" effect, "value-of-portfolio" effect, "credit rationing" effect, etc., see Assar Lindbeck, *The "New" Theory of Credit Control in the United States*, Stockholm: Almqvist and Wiksell, 1959. See, also, Warren L. Smith, "On the Effectiveness of Monetary Policy," *American Economic Review*, XLVI, September 1956, pp. 588-606, and John H. Kareken, "Lenders' Preferences, Credit Rationing, and the Effectiveness of Monetary Policy," *Review of Economics and Statistics*, XXXIX, August 1957, pp. 292-302.

It is evident that central bank reliance on the "availability doctrine" in its original form has diminished with the passage of time. For a documentation of this change in emphasis as reflected in one significant publication of the Board of Governors, see Lawrence S. Ritter, "Official Central Banking Theory in the United States, 1939-61: Four Editions of *The Federal Reserve System: Purposes and Functions*," *Journal of Political Economy*, LXX, February 1962, pp. 14-29. Ritter notes a number of changes with respect to the theory of monetary control from the 1954 to the 1961 editions. Among these changes were the following: the large and widely distributed Federal debt and highly developed financial system were no longer viewed as "unmixed blessings" since they facilitate mobilization of idle balances and credit creation; the lending behavior of non-bank financial institutions was no longer viewed as "highly susceptible" to System control; the "locking-in" effect had been downgraded, etc.

previous policy of lending direct support to Treasury refunding operations. This support took the form of central bank purchases of "rights" to new issues, new issues on a "when issued" basis, and outstanding securities in the market comparable to the new issues. Despite the availability of central bank underwriting, there was little enthusiasm for debt lengthening by the Treasury. Treasury spokesmen contended that "no significant volume" of long-term funds was available for the purchase of government bonds. In addition, they continued to emphasize the importance of maintaining "confidence in the Government's credit" and a "sound" securities market—both objectives being correlated with relatively stable security prices.[8] This emphasis worked to discourage all but a few minor attempts at financing outside the short-term (under 1-year) area. Consequently, the maturity structure of the debt continued its sharp downward drift, as had been the case continuously since the end of the Second World War.

Even after monetary policy tightened in the spring and summer of 1952, attrition (cash-ins of maturing securities) never became especially serious, owing primarily to the rather sizable support purchases by the central bank. Although the debt managers' problems were clearly eased by central bank underwriting, it appears that the monetary authorities were anxious to abandon such support as quickly as feasible. As it was later argued in a subcommittee report on the functioning of the government securities market, a firm commitment to support refundings "seriously hampers freedom of action in effectuating general credit policy."[9] The most persuasive arguments seemed to be that the ability of the Federal Reserve to contain credit expansion is limited by the necessity of making frequent and often substantial support purchases and that support purchases at least temporarily establish a "pegged" market.[10]

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[8] See portions of the report submitted by Secretary Snyder in *Patman Replies*, pp. 1-206, and the *Annual Report of the Secretary of the Treasury, 1952*, pp. 1-13.

[9] Report of the three member subcommittee appointed to investigate the impact of open market techniques on the functioning of the government securities market in: United States Congress, Subcommittee on Economic Stabilization of the Joint Committee on the Economic Report, *United States Monetary Policy: Recent Thinking and Experience, Hearings*, 83rd Congress, 2nd Session, 1954, p. 303. This document is called the *Flanders Hearings*.

[10] The full text of the subcommittee report is included in the *Flanders Hearings*, pp. 257-307. The subcommittee also argued that support purchases encourage unrealistic (low) rates on new Treasury issues and result in a "frozen" central bank portfolio heavily weighed with the securities acquired in the support operations.

Neither argument appears persuasive. It is possible that a general commitment to support all refunding operations regardless of the terms set by the Treasury could force massive purchases on the central bank. However, there is no reason why the Federal Reserve should agree to support any operation in which the Treasury insisted on terms that were unrealistically low in the System's view. In such cases—which would undoubtedly become infrequent—the Treasury would have to assume full responsibility. Similarly, the "frozen" portfolio argument is less than completely convincing. The System is not forced to maintain any given security in its portfolio over time. Securities purchased in support operations can later be sold, though perhaps gradually, with the potential effect on bank reserves being offset by purchases of Treasury bills if necessary. This argument reduces to the more basic desire to minimize market intervention, whatever the purpose. For a similar emphasis, see Deane Carson, "Federal Reserve Support of Treasury Refunding Operations," *Journal of Finance*, XII, March 1957, pp. 51-63.

The importance of these arguments has been questioned, however.[11] While free reserves often registered sizable increases (or net borrowed reserves registered decreases) for a period of several weeks following large support operations, the seriousness of this situation depended both upon the use made of the additional reserves and the speed with which these reserves were utilized. In general, in any period of refunding support, if banks rapidly utilize their new reserves to make loans rather than to reduce their indebtedness to the central bank, it is probably more difficult for the monetary authorities to offset the initial effect of the support purchases. When banks make new loans before the System has had time to reabsorb the reserves, conditions in the money market, if measured by free reserves,[12] may appear as tight as the conditions existing before the support operation was undertaken. But loan expansion has occurred. On the other hand, commercial banks may consider reserves created in support operations as extremely temporary—especially if the System could make it known that reserves created under such circumstances do not reflect a permanent easing of monetary policy. The "traditional" view of discounting, i.e., that banks are reluctant to remain in debt to the central bank, suggests that the bulk of the newly created reserves would be used to reduce bank indebtedness. In this case, figures for free reserves reflect the easing conditions brought about by support operations, and therefore the easing conditions are more readily offset.

Furthermore, one should distinguish sharply between so-called "temporary pegs" during a period of refunding support, and a policy of rigid, continuous support of security prices.[13] With temporary pegs, interest rates are free to move between major Treasury operations. It is essential, however, that the Federal Reserve does not purchase securities over a period much longer than the subscription period—as might be done if the purpose were to guarantee purchasers that they could not better their return for an appreciable period of time. If the period of market stabilization is short and support purchases are limited, the bulk of the funds released could be reabsorbed quickly. During the transition period, the Open Market Committee was able to accomplish a certain volume of offsetting sales of other securities concurrently with support purchases, and to mop up substantial reserves between refundings.[14]

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[11] See, in particular, Carson, *op. cit.* Hansen argued that the subsequent decision to abandon support operations amounted to "a partial abdication of the Reserve System with respect to one of its functions. Private flotations have the benefit of underwriting support, and one should imagine that a central bank would have as one of its primary functions the obligation to act as the underwriter for Treasury flotations." Hansen, *op. cit.*, p. 111.

[12] It is, of course, difficult to estimate the importance of the free reserves concept in the formulation and interpretation of central bank policy. It is evident, however, from various pronouncements that the concept does carry substantial weight. See, for example, "The Significance and Limitations of Free Reserves," *Federal Reserve Bank of New York Monthly Review*, XL, November 1958, pp. 162-167.

[13] For an excellent discussion of various approaches to "pegs," see R. V. Roosa, "Integrating Debt Management and Open Market Operations," *American Economic Review, Papers and Proceedings*, XLII, May 1952, especially pp. 218-223.

[14] A tabulation of Federal Reserve transactions in Treasury securities both during periods of refundings and between refunding periods is found in the *Flanders Hearings*, p. 265.

Apparently, however, the monetary authorities were not satisfied with the net result. It is problematical to what degree their dissatisfaction was attributable to an aversion to interference with the "free market." [15]

III. *The Era of Free Markets, 1953-1960*

The second major period of debt management corresponds roughly to the eight years of the Eisenhower administration. With the inauguration of "bills only" in March 1953, the Federal Reserve completed its move toward "central bank independence" and "free markets"—a policy which, as one critic put it, came to represent the "fetish of laissez-faire." [16] In addition to the elimination of Treasury refunding support, swapping operations were specifically disallowed. Open market operations were to be confined, except in the correction of disorderly markets, to short-term securities, preferably bills.[17] "Bills only" was felt to be consistent with the objectives of "neutrality" and "minimum intervention." By confining its operations under normal conditions to Treasury bills, the central bank would keep the impact of its activities as broad and impersonal as possible—neither influencing prices of particular securities directly, nor attempting to maintain any particular rate structure.[18]

[15] Carson argued that while more market intervention was required and the timing of credit policy was occasionally disrupted because of the support policy, the central bank was able to maintain a "reasonably effective" degree of restraint. By "traditional standards," monetary policy was successful. Carson, *op. cit.*

[16] Ervin Miller, "Monetary Policies in the United States Since 1950: Some Implications of the Retreat to Orthodoxy," *Canadian Journal of Economics and Political Science*, XXVII, May 1961, p. 218.

[17] See the record of operating policy statements in *Annual Report of the Board of Governors of the Federal Reserve System, 1953*, pp. 86-105. Until its discontinuance in 1961, the "bills only" policy was reaffirmed annually by the Open Market Committee.

[18] In addition to its rather specific objections to support of Treasury refunding operations, the subcommittee's major concern was that all central bank operations outside the shortest end of the market (except those necessary in the correction of disorderly conditions) interfered unduly with the operational excellence of the market, i.e., its "depth, breadth, and resiliency." Perhaps the two best defenses of "bills only" have been given by Winfield W. Riefler, "Open Market Operations in Long-Term Securities," *Federal Reserve Bulletin*, XLIV, November 1958, pp. 1260-1274, and Ralph A. Young and Charles A. Yager, "The Economics of 'Bills Preferably,'" *Quarterly Journal of Economics*, LXXIV, August 1960, pp. 341-373. Young and Yager carefully developed the argument that such a policy contributes to a well-performing securities market. Riefler emphasized the argument that the initial effects of monetary policy on short-term interest rates are rapidly transmitted to the long-term market by a process of arbitrage. It makes little difference for the structure of interest rates whether operations are conducted in Treasury bills or directly in long-term securities.

Criticism of the "bills only" policy and of its theoretical and philosophical underpinnings has apparently constituted one of the favorite pursuits of academic economists. For a brief sample of a vast critical literature, see Joseph Aschheim, *Techniques of Monetary Control*, Baltimore: Johns Hopkins Press, 1961, chapter 4; Deane Carson, "Recent Open Market Committee Policy and Technique," *Quarterly Journal of Economics*, LXIX, August 1955, pp. 321-342; Dudley Luckett, "'Bills Only': A Critical Appraisal," *Review of Economics and Statistics*, XLII, August 1960, pp. 301-306; Warren L. Smith, *Debt Management in the United States*, especially pp. 118-134; and Sidney Weintraub, "The Theory of Open Market Operations: A Comment," *Review of Economics and Statistics*, XLI, August 1959, pp. 308-312. In his survey of monetary theory and policy, Harry Johnson suggested, "The bills-only policy . . . appeared

At roughly the same time, a distinct change in the philosophy and objectives of Treasury debt management was evidenced as the new Administration assumed office. The necessity of lengthening the debt structure was emphasized repeatedly.[19] This objective was primarily (although not entirely) placed in the context of anti-inflationary policy. Excessive short-term maturities were considered disadvantageous primarily for three reasons: (1) frequent trips to the market by the Treasury would restrict the freedom of the central bank to pursue credit restraint;[20] (2) shorter-term issues were more likely to be purchased by commercial banks, thus resulting in an inflationary expansion in the money supply;[21] and (3) short-term securities, even when purchased by non-banks, would provide close money substitutes, thus adding to inflationary pressures.

In this new atmosphere, debt management assumed a secondary role. Debt management operations were to be conducted so as to contribute to the effectiveness of monetary policy—thus, in effect, largely reversing their pre-Accord roles. At first, it appeared that the public debt might be managed counter-cyclically as a supplement to counter-cyclical monetary policy. A counter-cyclical debt management policy would involve lengthening the debt structure during periods of mon-

to most academic economists as an undesirable renunciation by the central bank of an important technique of monetary control, and the reason given for it . . . as a shallow excuse masking the unwillingness of the Federal Reserve to risk unpopularity with the financial community by overtly subjecting it to capital losses." Harry G. Johnson, "Monetary Theory and Policy," *American Economic Review*, LII, June 1962, p. 374.

[19] For example, see the addresses and statements made during 1953 by Secretary Humphrey and Deputy to the Secretary Burgess that are published in the *Annual Report of the Secretary of the Treasury, 1953*, especially pp. 239-242, 255, and 260-266. The debt lengthening objective was frequently reiterated throughout the entire 1953-1960 period, even during those times when few long-term bonds were actually issued.

[20] Even if the central bank does not underwrite the Treasury, it must inevitably adjust somewhat to the Treasury's financing requirements. The Federal Reserve follows a policy of attempting to maintain an "even keel" in the market during periods of Treasury finance. This policy precludes any actions that might alter basic market relationships or market expectations, and thus is felt to prevent the central bank from making independent policy decisions during periods of large Treasury operations.

[21] The argument that sales of securities to commercial banks are inflationary because of the resulting money creation is clearly invalid. Banks which have no excess reserves can purchase government securities only by disposing of other investments or by reducing outstanding loans. If banks have excess reserves, they are either not in equilibrium or they desire to hold excess reserves for liquidity purposes. Banks in disequilibrium would purchase other assets even if they did not buy the government securities, while banks that hold excess reserves for liquidity purposes would buy the government securities only if they could sell other assets. Thus, in no case are sales to commercial banks inflationary in the sense of money creation. Furthermore, when the proceeds of security sales to banks are added to Treasury balances at the Federal Reserve, bank reserves are decreased.

The Treasury's fear of debt monetization leads to a confusion about the respective roles of the Treasury and Federal Reserve. Changes in total commercial bank assets, which include government securities, are more closely regulated by central bank policy than by Treasury debt management. On the question of debt monetization, see Milton Friedman, *A Program for Monetary Stability*, New York: Fordham University Press, 1960, especially pp. 52-55, and Tilford C. Gaines, *Techniques of Treasury Debt Management*, New York: The Free Press of Glencoe, 1962, pp. 249-251.

etary restraint and placing only minimum reliance on bond issues during periods of recession. Therefore, debt management would alternately reduce liquidity when monetary policy was tight and expand liquidity when monetary policy was easy. Such a policy was not forthcoming, however.

Initial attempts at debt lengthening in the first half of 1953 encountered serious difficulties.[22] After monetary policy shifted in mid-year to combat the ensuing recession, the Treasury judiciously refrained from selling long-term (over 10-year) bonds so as to avoid competition with private demands for long-term funds. However, the policy of monetary ease created a highly receptive market for government securities outside the short-term area. The Treasury's newly adopted program of optional exchange offerings [23] allowed the public, especially commercial banks, to purchase substantial quantities of intermediate-term (5-10 year) bonds. On balance, debt management was at least mildly pro-cyclical. From the end of June 1953, to December 1954, publicly held marketable Treasury debt in the 5-10 year category rose from $16.9 billion to $32.2 billion, while that under 1 year fell by $5.6 billion.[24]

With the passage of time, Treasury debt management became progressively more, rather than less, pro-cyclical. In mid-1955, the Federal Reserve moved toward a more restrictive policy and, in general, maintained restraint on commercial bank reserves until the last quarter of 1957. However, from March 1955, to September 1957, the Treasury made only a single offering of bonds. Consequently, public holdings of Treasury issues with less than 1-year to maturity rose by $16.0 billion; 1-5 year issues rose by $11.7 billion; and 5-10 year issues declined by $18.5 billion.[25]

[22] In April 1953, the Treasury announced a cash issue of 3¼ percent bonds of 1978-83. Approximately $1.1 billion of these long-term securities were sold to the public. However, the government securities market became somewhat disorganized after this issue. The Treasury was criticized in certain quarters for its decision to press for debt lengthening at that time and for the "excessive" rate of interest paid.

[23] In optional exchange offerings, holders of maturing issues are given an option between at least two new issues of varying maturities. While this technique reduces cash-ins of maturing issues, it is subject to the disadvantage of partially transferring control over the maturity structure of the debt to the public.

[24] These and subsequent figures on the maturity structure of the debt are taken from various issues of the *Federal Reserve Bulletin*. Admittedly, these figures are only broadly indicative of the liquidity impact of debt management and must be used with discretion. The use of maturity categories for liquidity analysis is subject to notorious shortcomings; i.e., all securities within a given category are not equivalent with respect to liquidity and there is likely to be a greater substitutability between certain issues in different categories than between certain issues in the same category.

[25] Treasury spokesmen stressed the difficulty of selling intermediate- and long-term bonds in the face of restrictive monetary policy and prevailing expectations of rising interest rates. Expectational forces are said to be so strong during such times that buyers cannot be found. Attempts to "force" longer-term securities on unwilling investors could result in chaotic markets. In addition to the practical difficulties of issuing longer-term securities, the higher interest costs involved may have also acted as a deterrent to debt lengthening. For an emphasis on the practical difficulties of selling government bonds, see the remarks by Under Secretary of the Treasury Baird published in *Annual Report of the Secretary of the Treasury, 1958*, pp. 275-279; the testimony of Secretary Anderson in United States Congress, Joint Economic Committee, *Employment, Growth, and Price Levels, Hearings*, Part 6C, 86th Congress, 1st Session, 1959, especially pp. 1721-1729; and Secretary Anderson, "Financial Policies for Sustainable Growth," *Journal of Finance*, XV, May 1960, especially pp. 133-139.

In view of its long-standing objective to lengthen the debt structure, the Treasury's failure to sell more long-term bonds during these years was undoubtedly an important factor leading to the excessive reliance on bond financing after the recession began in late 1957. In an 8-month period—from November 1957, through June 1958—there were 6 new issues of bonds. Some $3.2 billion of over 15-year bonds and $12.2 billion of intermediate-term bonds were sold to the public in cash and refunding operations. This vigorous debt lengthening program eventually resulted in the speculative market collapse following the issue of 2¾ percent bonds in June.[26] Both the Treasury and Federal Reserve intervened on a limited scale to stabilize the market. However, by the end of the summer, at a very early stage of the recovery, long-term bond yields were back at approximately the same levels that had prevailed at the previous cyclical peak. The extent to which these events contributed to the unsatisfactory character of the 1958-1960 economic expansion is problematical. After the upturn in economic activity, monetary policy changed—too quickly according to many critics—[27] to "fostering . . . balanced economic recovery" (August 1958) and finally to "restraining inflationary credit expansion . . ." (May 1959).[28] During this economic expansion, the Treasury, for reasons somewhat beyond its control, again concentrated on short-term financing.[29]

During a large part of the 1953-1960 period, for whatever reasons, debt management operations exerted a pro-cyclical liquidity impact. Thus, whatever contribution the Treasury made with respect to the effectiveness of monetary policy must have taken the form of minimizing interference with central bank operations. Partly for this reason, Treasury officials continued to emphasize the importance of "tailoring" issues to the needs of the market and, beginning in 1958 and 1959, extended the auction technique[1] to 6-month and 1-year bills and instituted nonpar pricing of new issues. Following the withdrawal of direct underwriting support by the central bank, however, average attrition rates rose during successive phases of rising interest rates.[30] Based on

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[26] For a detailed description of this episode, see the *Treasury-Federal Reserve Study of the Government Securities Market*, Parts I-III, Washington, D.C.: Government Printing Office, 1959-1960.

[27] See, for example, Warren L. Smith, "Monetary Policy, 1957-1960: An Appraisal," *Review of Economics and Statistics*, XLII, August 1960, pp. 269-272, and Sidney Weintraub, "Monetary Policy, 1957-59: Too Tight, Too Often," *Review of Economics and Statistics*, XLII, August 1960, pp. 279-282.

[28] *Annual Report of the Board of Governors of the Federal Reserve System, 1958*, p. 59; *Annual Report, 1959*, p. 44. In December 1958, the wording of the Open Market Committee's directive had been changed to indicate a greater degree of restraint than that indicated in August 1958.

[29] In particular, the Treasury's hands were tied for a significant part of this period by the legal interest rate ceiling of 4¼ percent on new issues of bonds. In addition, cash requirements were exceptionally large because of the large cash deficits and the net redemption of nonmarketable Treasury issues.

[30] As one study found, average attrition rates were higher from December 1954, to August 1957, than from October 1952, to June 1953, and highest of all from August 1958, to August 1959 (the cut-off date). Burton C. Hallowell and Kossuth M. Williamson, "Debt Management's Contribution to Monetary Policy," *Review of Economics and Statistics*, XLIII, February 1961, pp. 81-84.

this evidence, it has been suggested that in appraising the effects of attrition, the Treasury widened its limits of tolerance in order to avoid direct assistance from the central bank.[31]

In retrospect, the Federal Reserve's "bills only" policy contributed to pro-cyclical debt management in two respects; yet, ironically, it is likely that the effectiveness of monetary policy was hampered at times by the pro-cyclical liquidity impact of debt management operations.[32] First, except in rare cases, the central bank restricted its own operations in public debt to the short end of the market. By this decision, the Federal Reserve voluntarily passed up opportunities to buy intermediate and long-term issues during recessions and to sell similar maturities during inflationary periods. Second, and more important because of the much larger scale of the Treasury's operations, the lack of dependable underwriting support from the central bank may have led the Treasury into undue conservatism in its choice of securities. During periods of rising interest rates, especially in 1955-1957, the Treasury was reluctant to experiment with new bond issues in the face of prevailing market expectations. By attempting to "force" bond issues on the market, the Treasury felt that it would risk a very substantial attrition. In turn, this reluctance led to exploitation of market expectations in the following recession. While it is quite unrealistic to assume that direct underwriting support by the Federal Reserve would have solved all of the Treasury's problems, it is also quite likely that the performance of debt management would have been somewhat better with such support.

IV. *The Twisting or Nudging of the Interest Rate Structure*

The most recent of the three post-Accord periods of debt management policy should include, perhaps, the final portion of the 1960-1961 recession as well as the low-level recovery and expansion of 1961-1962.[33] Although the 1960-1961 decline was relatively mild, it was especially disturbing because the economy had never completely recovered from the 1957-1958 recession. While the rise in unemployment was more moderate than in the two preceding recessions, this in-

Carson has pointed out that debt management was more "successful" in minimizing attrition from June 1951, to September 1952, when Federal Reserve support was utilized, than in the "comparable period" of monetary restraint, November 1955, to July 1957, when Treasury support through purchases for the trust funds was utilized. Deane Carson, "Treasury Open Market Operations," *Review of Economics and Statistics*, XLI, November 1959, pp. 438-442.

[31] Hallowell and Williamson, *op. cit.*

[32] For an emphasis on the desirability of counter-cyclical debt management, see J. M. Culbertson, "A Positive Debt Management Program," *Review of Economics and Statistics*, XLI, May 1959, pp. 89-98; R. L. Bunting, "A Debt Management Proposal," *Southern Economic Journal*, XXV, January 1959, pp. 338-342; and Thomas R. Beard, "Counter-Cyclical Debt Management—A Suggested Interpretation," *Southern Economic Journal*, XXX, January 1964, pp. 244-252.

Both Gaines and Friedman, for somewhat different reasons, have proposed a "neutral" debt management policy. "Neutrality" involves maintaining a constant maturity structure of the debt regardless of economic conditions. Gaines, *op. cit.*, especially chapter 8, and Friedman, *op. cit.*, especially pp. 52-65.

[33] While operations in longer-term issues were not sanctioned until February 1961, open market operations were extended to include issues in the 9-15 month range in the fall of 1960 in order to avoid downward pressure on bill rates. Also, in the last half of 1960 there was some expansion in short-term issues by the Treasury.

crease was superimposed on the already high level of unemployment that had persisted at the peak of the previous expansion. Even after the trough of February 1961, unemployment remained disappointingly high—a situation apparently requiring expansionary policies of greater strength and duration than those utilized following the previous upturns in economic activity. On the other hand, the recession developed against the background of a persistent deficit in the balance of payments, a condition considerably aggravated in both 1960 and 1961 by large outflows of short-term capital. The authorities felt that the international differentials in short-term interest rates that developed in 1960 contributed to this state of affairs. Therefore, international considerations began to influence monetary and debt management policies to an extraordinary extent.[34] The main focus of these policies concerned finding methods of combatting the persistent balance of payments deficits, including the outflows of short-term capital, while, at the same time, maintaining conditions conducive to more rapid recovery and expansion.[35]

A major result of this dual concern was the inauguration of "operation nudge," which involved official attempts at "twisting" the interest rate structure. Upward pressure on short-term rates (but not the establishment of a particular floor) was considered desirable for external purposes. Downward pressure on long-term rates was sanctioned for domestic purposes. Debt management was thus elevated to a new level of importance as the major instrument of economic policy most capable of twisting the rate structure in the desired manner. This new approach to debt management presumably involved the cooperation of both the Treasury and the Federal Reserve. The decision by the Federal Reserve to conduct open market operations outside the short-term area constituted a partial abandonment of the "free market" doctrine—but only partial in that direct support of Treasury refunding was not resumed. This decision also represented some apparent change in official thinking with respect to the Federal Reserve's ability to alter the rate structure.[36]

Partly because of the unusual economic conditions, it is not surprising to find considerable debate concerning the degree of ease or tightness of monetary policy in both recession and recovery. According to public statements and testimony, the intentions of the monetary authorities were on the side of relative ease.[37] Sup-

[34] The extraordinary degree of importance attached to international considerations by historical standards is emphasized in the *Annual Report of the Federal Reserve Bank of New York, 1961*, pp. 6-7.

It is stated, for example,

> "The hard facts of recent balance-of-payments developments, in the context of the international role of the dollar, have revised the basic framework for monetary policy in the United States. As an objective of monetary policy, the defense of the international value of the dollar has come to occupy a position alongside the goal of stable domestic growth" (p. 7).

[35] See, for example, R. V. Roosa, "Reconciling Internal and External Financial Policies," *Journal of Finance*, XVII, March 1962, pp. 1-16.

[36] In contrasting the new position with previous statements as to the System's inability to alter the rate structure, one critic was prompted to remark, "How can the Fed influence the interest rate structure for international purposes, if it cannot do so for domestic purposes?" James R. Schlesinger, "The Sequel to Bills Only," *Review of Economics and Statistics*, XLIV, May 1962, p. 185, fn. 3.

[37] See, for example, the testimony of Chairman Martin in United States Congress, Joint Economic Committee, *State of the Economy and Policies for Full Employment, Hearings*, 87th Congress, 2nd Session, 1962, pp. 601-648, and in United States Congress, Joint Economic Committee, *January 1963 Economic Report of the President, Hearings*, 88th Congress, 1st Session, 1963, pp. 337-379.

porters of the "easy money" interpretation have pointed to a number of indicators: the continuation of positive free reserves throughout 1961 and 1962; the unusual stability of intermediate- and long-term interest rates during the recovery and expansion; the rapid rate of growth in time and savings deposits in commercial banks; etc. Those who support the "tightness" view have emphasized an allegedly inadequate rate of growth in the money supply (demand deposits plus currency);[38] the high level of long-term interest rates, especially during the recession; etc.

Similarly, the impact of debt management on liquidity and the structure of interest rates is debatable. Analyzing the impact of debt management is especially difficult for at least two reasons. First, during this period, the public's holdings of marketable debt in *both* the shortest-term (under 1-year) and the longest-term (over 20-years) maturity categories registered increases. Second, the debt management operations of both the Treasury and the Federal Reserve must be considered, and this creates uncertainties. Treasury and Federal Reserve operations which have identical impacts on the maturity structure of the publicly held debt could still differ in their respective impacts on the interest rate structure. This differential impact can exist if the central bank's operations have a more pronounced effect on market expectations, and if expectations are important in determining the term structure of rates.

With respect to short-term issues, the public's holdings of under 1-year securities rose by roughly $8.6 billion (including tax anticipation issues) in the last half of 1960, by a significant $8.4 billion in 1961, and by another $2.4 billion in 1962. While increases in 1962 were moderate, the authorities emphasized the fact that public holdings of Treasury bills rose by $5.2 billion, being only partially offset by declines in coupon-bearing issues with less than one year to maturity. The bulk of the expansion in short-term issues resulted from Treasury operations. However, the central bank also made a significant contribution, especially from the point of view of the short-term interest rate objective. If the Federal Reserve had followed earlier procedures of supplying reserves only through purchasing bills, it would have been a net buyer of $3.5 billion of short-term issues in 1961-1962, rather than a net seller of about $950 million.[39]

With respect to the capital market, a considerable amount of debt extension was undertaken.[40] Due largely to the Treasury's "senior" advance refunding operations—a debt management technique first utilized in October 1960—outstanding maturities in excess of 20 years rose in the range of $1.5 billion to $2.5 billion per year from 1960-1962. For largely the same reason, the arithmetic average maturity of the total marketable debt rose slightly in both 1960 and 1962, while remaining roughly unchanged in 1961. In these "senior" advance refundings, holders of outstanding 2½ percent bonds with

[38] See, for example, the testimony of J. M. Culbertson in *State of the Economy and Policies for Full Employment, Hearings*, pp. 417-430, and the testimony of Allan H. Meltzer in *January 1963 Economic Report of the President, Hearings*, especially pp. 595-605.

[39] "Changes in Structure of the Federal Debt," *Federal Reserve Bulletin*, XLIX, March 1963, p. 305.

[40] One of the most persistent critics of debt lengthening operations during this period has been J. M. Culbertson. In addition to his testimony cited earlier, see his paper, "The Recent Policy Mix and Its Implications," *Proceedings of the Business and Economic Statistics Section of the American Statistical Association, 1963*, pp. 362-366.

from roughly 6½–11 years to maturity were given the option of exchanging them for new issues in the range of 19-38 years to maturity.[41]

What was the impact of "senior" advance refunding on liquidity and long-term interest rates? While little analysis of advance refunding has yet appeared, it is quite possible that the impact of debt lengthening could be either overestimated or underestimated.

The sale of long-term debt is likely to have a more *immediate* impact on liquidity and long-term interest rates in a cash or regular refunding operation than in a "senior" advance refunding. When the Treasury sells long-term government bonds for cash, the total amount of bonds is increased and additional long-term funds must be found for their purchase—funds which would otherwise be available for the purchase of alternative types of long-term private issues. Likewise, the immediate market impact of regular refundings is similar even though the total volume of government debt is not increased. The maturing securities are held in large measure by short-term investors who are not interested in purchasing long-term bonds. Therefore, investors who wish to exchange for the long-term bonds will ordinarily purchase "rights" to the new issues or "when-issued" securities from dealers (who in turn acquire "rights"), and this transfer of ownership involves a considerable amount of market "churning." The "senior" advance refunding operations, however, minimize changes in ownership and the amount of new cash funds required to purchase the long-term bonds. Presumably, a large portion of the long-term bonds taken in "senior" advance refundings are substituted for the eligible issues of shorter maturity which are held by the typically long-term investors—thus minimizing the *immediate* market impact of the operation.[42]

On the other hand, the above argument tends to understate the impact of "senior" advance refundings by concentrating narrowly on the immediate market reaction. Even if the purchase of long-term governments does not immediately reduce (significantly) the flow of funds into corporates, municipals and mortgages, this undesirable effect may only be delayed or spread out over time. As the passage of time moves outstanding government bonds toward the intermediate-term range, "long-term" investors normally dispose of many of these securities in order to lengthen their portfolios through the purchase of corporates, municipals, and mortgages. By inducing investors to lengthen their portfolios through the purchase of long-term government bonds, it is likely that over a period of time the flow of funds from the intermediate sector into private long-term securities is reduced.

A related issue concerns the impact of the Federal Reserve's operations in inter-

[41] The Treasury has also conducted "junior" advance refundings and pre-refunding operations. "Junior" advance refundings involve outstanding issues with 1-5 years to maturity and pre-refundings involve issues with less than 1-year to maturity. Normally, a significantly smaller extension in average maturity is accomplished in these operations than is accomplished in advance refundings of the "senior" variety.

[42] Secretary Dillon has defended advance refunding as an important technique for improving the debt structure with a minimum impact on long-term rates and the flow of funds into long-term private investment. See the testimony of Secretary Dillon in United States Senate, Committee on Finance, *Advance Refunding and Debt Management, Hearings,* 87th Congress, 2nd Session, 1962, pp. 1-86, and in *State of the Economy and Policies for Full Employment,* especially pp. 666-668, 677-681, and 685-686. See, also, "Debt Management and Advance Refunding," U. S. Treasury Department, September 1960, and "Advance Refunding: A Technique of Debt Management," *Federal Reserve Bank of New York Monthly Review,* XLIV, December 1962, pp. 169-175.

mediate- and long-term securities. Despite the celebrated abandonment of "bills only," it is clear that the volume of central bank operations outside the short-term area was not large. In both 1961 and 1962 combined, the Federal Reserve made net purchases outside the short-term area of only $4.4 billion, of which less than $1.2 billion were in over 5-year maturities.[43] By way of contrast, the Treasury engaged in substantial bond sales to the public in both regular and advance refundings. It is unlikely that the Federal Reserve can exert much downward pressure on interest rates—even if that were its intention—in those market sectors in which the Treasury is greatly expanding its debt operations. Furthermore, there is good evidence that the relatively small amount of bond purchases by the Federal Reserve was not normally undertaken with the specific purpose of exerting downward pressure on rates, but rather was conducted "in a manner intended to exert minimum direct influence on prevailing prices and yields."[44] Typically, the Trading Desk did not solicit offerings from dealers, but only purchased some of the securities offered at the dealers' initiative. Purchases of longer-term issues were geared largely to the objective of cushioning downward pressures on short-term rates,[45] rather than creating direct downward pressures on intermediate- and long-term rates.

For these various reasons, the extent of debt management's contribution to the remarkable stability of intermediate- and long-term rates over the 1961-1962 expansion is somewhat questionable. Clearly, during the latter year, the impact of the weak recovery on expectations and the desire of commercial banks for longer-term assets[46] were both significant developments in exerting downward pressure on long-term rates. Likewise, the precise impact of debt management on liquidity is difficult to assess. Nevertheless, even with these uncertainties, one conclusion seems readily apparent—that debt management made a greater contribution to the objectives of monetary policy than was the case in the earlier era of "free markets" when debt management operations were decidedly procyclical. Even if our present international difficulties should largely (and perhaps miraculously) disappear, it would be unwise for debt management to retreat to the policies of the "free market" era.

V. *Concluding Observations*

Admittedly, we do not have complete answers to all the important questions bearing on the proper relationship of debt management and monetary policy. In recent years, debt management has often been heralded as offering a unique tool for combatting external balance of payments problems without sacrificing the domestic objective of more rapid growth. Clearly, the actions of the authorities with respect to short-term rates were

[43] "Changes in Structure of the Federal Debt," *Federal Reserve Bulletin*, March 1963, p. 307.

[44] "Federal Reserve Open Market Operations in 1962," *Federal Reserve Bulletin*, XLIX, April 1963, p. 432.

[45] Apparently, the System bought intermediate- and long-term issues for two major reasons: (1) to supply reserves without exerting direct downward pressure on short-term rates; and (2) to offset the reserve effect of bill sales made to cushion downward pressure on short-term rates.

[46] Higher interest rates on time and savings deposits channeled a large volume of short-term funds into the banking system. Banks tended to invest these funds in medium- and long-term assets, thereby contributing to the actual declines in intermediate- and long-term rates during 1962.

taken largely for external purposes. With respect to international considerations, the important questions are two-fold: (1) the extent to which debt management can push up short-term rates (especially bill rates) to higher levels than would otherwise exist; and (2) the significance of international interest rate differentials with respect to short-term capital flows.

Perhaps even more important, we need to know more about whether a *genuine* policy of "twisting" by both the Treasury and Federal Reserve is desirable for *purely domestic* purposes. Consider an expansionary debt management policy. Increasing the public's holdings of highly liquid short-term issues (to exert upward pressure on short-term rates) while reducing the public's holdings of less liquid longer-term issues (to exert downward pressure on longer-term rates) would have a desirable liquidity effect and reduce the demand for cash balances. But the strength of this effect depends upon the relative "degree of moneyness" of government securities of varying maturities—about which little is known of a precise nature.

Similarly, the extent to which debt management can actually "twist" the interest rate structure is important.[47] A policy of attempting to twist the rate structure for domestic purposes will be more desirable to the extent that: (1) long-term rates can be reduced even in the presence of higher short-term rates; (2) short-term rates are much less important than long-term rates with respect to private investment decisions; and (3) higher short-term rates discourage the holding of cash balances while lower long-term rates encourage credit expansion by financial institutions because of the greater capital values of their asset holdings.

One final observation seems relevant. The advance refunding technique has enhanced the flexibility of Treasury debt management and increased the Treasury's ability to sell long-term bonds. It is far from certain, however, what course the Treasury would pursue in the event of a future resurgence of inflationary pressures coupled with generally rising interest rates. Past experience suggests that it may become necessary for the central bank to extend limited underwriting support to the Treasury in an

[47] The degree to which changes in the debt structure affect the structure of interest rates partly depends on the strength of other forces that influence the pattern of rates. Some economists consider expectations about future rates to be the predominant influence. If the expectational factor is dominant, a change in the maturity structure of the debt would by itself have little effect on the structure of interest rates. Recent empirical work by Meiselman supports the expectations approach. David Meiselman, *The Term Structure of Interest Rates*, Englewood Cliffs, N. J.: Prentice-Hall, 1962. Meiselman's approach, however, does not completely rule out any effect of debt management on the interest rate structure. Changes in the amounts of various maturities outstanding can cause expectations to change, and thus affect the prevailing interest rate structure. See John H. Wood, "Expectations, Errors, and the Term Structure of Interest Rates," *Journal of Political Economy*, LXXI, April 1963, pp. 160-171.

Some recent empirical work by Okun for the Commission on Money and Credit indicates that the effect of changes in relative supplies of various securities on the rate pattern was small for the period 1946-1959. Arthur M. Okun, "Monetary Policy, Debt Management and Interest Rates: A Quantitative Appraisal," *Stabilization Policies*, Englewood Cliffs, N. J.: Prentice-Hall, 1963, pp. 331-380. However, for an approach which gives considerable weight to the relative supplies of various securities in the market, see J. M. Culbertson, "The Term Structure of Interest Rates," *Quarterly Journal of Economics*, LXXI, November 1957, pp. 485-517. For a discussion of the great variety of factors which can shape the interest rate structure, see Stephen H. Axilrod and Ralph A. Young, "Interest Rates and Monetary Policy," *Federal Reserve Bulletin*, XLVIII, September 1962, pp. 1110-1137.

attempt to avoid the consequences of a serious shortening of the debt structure.[45] In such circumstances, the Federal Reserve would face a dilemma that could be framed in the following terms. To what extent would the central bank's ability to contain monetary and credit expansion be negated by a policy of supporting Treasury debt management operations? But on the other hand, in the absence of support operations, would a decidedly pro-cyclical Treasury debt management policy seriously complicate the task of monetary restraint through the piling up of highly liquid money substitutes?

[45] Central bank underwriting, of course, cannot solve the problems created by the legal interest rate ceiling on government bonds in periods when market rates reach the critical level. The solution to this problem lies in either one of two directions. Either Congress must remove this artificial barrier to flexible debt management policy, or the Treasury must be willing to risk unpopularity and circumvent the ceiling by issuing bonds at a sufficient discount to be in line with existing market rates.

► ROBERT A. MUNDELL

Problems of Monetary and Exchange Rate Management in Canada

I. *Introduction*

Canadian post-war financial history is rich in exchange rate and monetary experiments that illustrate some important principles. Exchange rate developments included the 1946 appreciation, the 1949 depreciation, the 1950 flexible exchange rate system, the June 1961 managed flexible exchange system, the May 1962 fixed rate system, and the June 1962 exchange crisis. Monetary history is highlighted by post-war debt management policy, the resumption of active monetary policy in late 1950, credit controls in 1951, the development of a money market between 1953 and 1955, the flexible bank rate system and liquid assets ratio in 1956, the Conversion Loan in 1958 (followed by tight money), and the reintroduction of a fixed bank rate in the crisis of June 1962. These events took place in an environment in which the Canadian business cycle followed U. S. activity: inflation in 1945-1948; recession in 1949; boom and inflation during the Korean War period; the 1953-1954 recession; the 1955-1956 investment boom; the 1957-1958 recession; short recovery in 1959; recession in 1960-1961; and sustained, but modest expansion from the middle of 1961 to the present.

This paper has three related purposes. First, it will review some of the important monetary developments between 1946 and 1964 to provide some institutional aspects of the background in which Canadian policy has been formulated. Second, it will develop an explanation of

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a curious feature of the flexible exchange rate experience evident from the preceding review: the propagation to Canada of the U.S. business cycle despite the insulating potentialities of a flexible exchange rate system. Third, it will ponder a dilemma with respect to the current fixed exchange rate system: the dilemma of policy that will arise if there is a reemergence of autonomous and speculative American capital flows to or from Canada.

II. *Monetary Events: 1946-1964*

Wartime finance in Canada had resulted (as in Britain and the U. S.) in huge private holdings of liquid resources. The 10 percent appreciation of the Canadian dollar in 1946 relieved some of the excess demand and inflationary pressure, but it created difficulties for external accounts and was responsible for the delay of de-control measures and the unofficial market that developed for Canadian dollars in New York. When sterling was devalued in September 1949, Canada (in the midst of a recession) devalued by 10 percent, a move which (as in 1946) coincided with internal needs but was soon to create difficulties again in the external accounts. As recovery got under way in the Spring of 1950, a speculative capital inflow began, reaching gigantic proportions after the outbreak of the Korean War. Within ten weeks the authorities accumulated over $500 million in reserves, and the difficulty of financing this accumulation in a non-inflationary way without infringing upon the prevailing goals of debt management led the authorities to consider exchange rate appreciation. But this time the rate was allowed to go up according to market forces, with only occasional spot intervention to even out trend, and temporary forward support, until the private futures market could be adequately expanded.

With the freeing of the rate [1] on September 30, 1950, the authorities took positive measures to sharpen the weapons of monetary policy. On October 16, Bank Rate was raised to 2 percent, and a more restrictive fiscal policy was introduced. As the Korean boom gained momentum and inflationary pressures were accelerated with the entry of the Chinese into the war, the authorities imposed credit ceilings on chartered bank loans (February 1951), an unprecedented action which contributed to a rise in long-term interest rates. The reintroduction of monetary policy in Canada thus slightly predated the famous "accord" between the Treasury and the Federal Reserve (March 1951).

Meanwhile, the exchange rate climbed to US $.95 toward the end of 1950, to parity by the end of 1951, and to a temporary premium at US $1.04 by the third quarter of 1952. The virtually continuous appreciation, totalling almost 15 percent since the introduction of the new system, was an important factor supplementing (and stimulated by) credit control in restraining inflation in 1952. It introduced a period of relative price stability that lasted until the early stages of the 1955-1957 capital investment boom.

As the 1950-1952 boom petered out in both the U. S. and Canada, and the unemployment rate began to rise in the third quarter of 1953, the exchange rate (which had previously fallen to US $1.01) rose to US $1.03, partly because of an increased interest differential between the two countries, as Canada moved at a slower rate toward monetary ease than the U. S. The more prolonged 1953-1954 recession in Canada was the first illustration of the greater sensitivity of effective demand to monetary policy when the exchange rate is flexible, a

[1] A detailed discussion of Canadian monetary and exchange rate policy throughout the 1950's and early-1960's can be found in a forthcoming book by P. Wormacott.

factor which was to assume more significance in the following years.

The 1953-1954 recession reached its peak in the third quarter of 1954, with the unemployment rate rising to about 5 percent of the labor force. The following recovery was a long and vigorous one with unemployment falling steadily to 3 percent at the end of 1956. Rapid monetary expansion throughout 1954 and 1955 substantially narrowed the interest differential and depreciated the exchange rate, which fell to "parity" at the end of 1955. But as the boom proceeded there was a resurgence of capital imports, as long term rates rose almost one and a half percent from the middle of 1955 to the middle of 1957. The ensuing exchange rate appreciation, from "parity" at the beginning of 1956 to US $1.05 in the third quarter of 1957, was helpful in restraining inflation during the boom, although it continued past the peak of the boom and part of the way into the succeeding 1957-1958 recession. It also coincided with, and stimulated, a current account deficit of huge proportions which began to be a matter of prime concern to the authorities.[2]

The recession of 1957-1958 was severe, with unemployment rising to over 7 percent for the first time since the pre-war period, and with per capita real GNP falling in both years, even though the implicit price index continued to rise by about 5 percent in the two years combined. Recovery got under way in the last quarter of 1958, and unemployment fell steadily until the third quarter of the following year. But this time unemployment at the peak of the 1959 boom (which proved abortive) did not fall below 5.5 percent, a figure even above the level of the 1953-1954 recession.[3]

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[2] Important developments had meanwhile occurred in monetary policy. It had long been the intention of the authorities to broaden the money market in Canada, and first steps were taken in 1953 when weekly (instead of fortnightly) offerings of treasury bills were introduced and the range of issues expanded to include 9-month as well as 3-month issues. In addition, purchase-and-resale agreements were made with 13 approved securities dealers by the Bank of Canada. In 1954 chartered bank day-to-day loans were introduced, replacing the purchase-and-resale agreements and making the Bank of Canada a lender of last resort with a penalty Bank Rate for securities dealers (since Bank Rate was above day-to-day loan rate). These actions were followed in turn by the introduction of a variable reserve ratio which permitted the Bank of Canada to vary (with notice) the required cash ratio of the banks between 8 percent and 12 percent, a new power for the Bank of Canada which constituted, along with the chartered banks' entrance into mortgage lending, the two most important features of the 1954 Bank Act. Further developments in late 1955 and 1956 included the minimum liquid-assets-ratio equal to at least 15 percent of deposit liabilities and the automatic setting of Bank Rate at ¼ percent above the last weekly tender rate on treasury bills. The first of these measures increased control by the Bank of Canada over the chartered banks, and the second eliminated the "announcement effect" of Bank Rate changes.

[3] Government financing after 1957 created difficulties with the burden of a budget deficit which was over $1 billion in 1958. To ease the problem of debt management, the government embarked on a massive Conversion Loan campaign in the summer of 1958, a refunding operation of almost $6 billion, or 45 percent of unmatured marketable issues; this lengthened the average maturity of marketable issues from 6 to 10½ years. The replacement of these issues on top of the additional debt for 1958 was accomplished largely through the banking system as the money supply rose by 12 percent in 1958. Interest rate effects were not felt strongly until after the third quarter of 1958, and throughout 1959, as the Bank of Canada initiated a period of tight money. The chartered banks unloaded the $1 billion worth of bonds they had acquired during the first three quarters of 1958 in the following five quarters, and this, in conjunction with an absolute decline in the money supply in 1959, made both short and long term interest rates shoot upward, with long term rates rising by a full percentage point (to 5 percent on long-term government bonds) and short term rates going from 1½ percent to 5 percent from the middle of 1958 to the middle of 1959. The tight money policy would itself have been sufficient to stall the 1959 recovery,

From 1957 to the present Canada's economic performance has been substandard, contrasting with the previous decade of almost uninterrupted progress at a rapid rate. Per capita real GNP declined at an average rate of 1 percent a year in the five years 1957-1961, while unemployment was for only a few months in 1959 below 6 percent (and then only slightly).

As a consequence of the rising unemployment and cessation of growth, widespread discontent developed with the policies of the Bank of Canada. The Bank continued to see inflation, which it regarded as a legacy of excessive spending in 1956, as the major threat to the economy and a cause of the worrisome deficit on current account in the balance of payments. By the early summer of 1961, open controversy broke out between the Governor of the Bank and the Minister of Finance. On June 20, 1961, a new economic program was announced in parliament after the Governor had been asked to resign and shortly after Coyne was replaced by Rasminsky in the midst of much public discussion of the proper role of a Central Bank in Canada. The new economic program aimed at stimulating domestic demand through increased budget deficits, and at reducing reliance on capital inflows by lowering the external value of the dollar and lessening the current account deficit. To accomplish this "flexible devaluation" the exchange fund account was to be used, if necessary.

Following the announcement of these measures the exchange rate moved to a discount, remaining at around US $.97 until the last two months of the year. The expansionary measures achieved a partial success as the unemployment rate moved down to about 6 percent by the end of 1961. But despite monetary expansion in 1960 of about 4.5 percent and in 1961 of almost 9 percent, long term interest rates remained near the post-conversion-loan level of 5 percent.

In October 1961, the exchange fund acquired US $186 million, which prompted a public statement by the Minister of Finance to the effect that the resources of the exchange fund would not be used to raise the value of the Canadian dollar, but might well be used instead to lower it to a discount greater than the existing 3 percent. The rate then moved irregularly downward in the following months with the exchange fund slowing its downward trend by sales of reserves. In April 1962, large sales followed the April 10 budget presentation announcing another large deficit in government accounts, and this loss of reserves was further aggravated by uncertainty over the April elections.

On May 2, 1962, the managed flexible exchange system (which had been in force since June 20, 1961) was abandoned in favor of a return to the par value system with the rate being somewhat arbitrarily set at US $.925. This temporarily steadied the market, but in June 1962 a new crisis arose when the exchange fund was drawn down by almost $400 million to a level of only US $1,100 million. On June 24 a number of emergency measures were announced. Canada drew US $300 million from the I.M.F., acquired a standby of $400 million from the U.S. Export-Import Bank, and negotiated reciprocal currency arrangements with the U. S. and U. K. totalling US $300 million. Fiscal measures included a reduction in government expenditure, import surcharges, and a lowering of tourist exemptions (which are still in force); and the Bank of

but it was reinforced by the vigorous impact of the interest rate changes on capital imports and the exchange rate, as the short term interest differential widened to over 4 percent and the exchange rate appreciated to US $1.05. The 1959 recovery was thereby choked off as unemployment rose steadily from the third quarter of 1959 to the first quarter of 1961, when it reached its postwar peak of almost 8 percent of the labor force.

Canada raised the bank rate to 6 percent, thereby abandoning the flexible bank rate system in effect since 1956.

These actions had an immediate effect on the capital and foreign exchange markets. Interest rates on all maturities rose, and a more or less flat yield curve developed at around 5 percent only a month after the emergency measures. The higher interest rates resulted in a substantial increase in the differential between Canadian and U. S. rates, and reversed the capital flows which in June had depleted reserves. The deficit on both current and capital account declined sharply and exchange reserves rose to US $2,539 gross and US $2,239 net (of emergency assistance) at the end of the year.

Per capita GNP in 1962 was for the first time above the 1956 peak, and economic expansion continued throughout 1963 and early 1964, as unemployment dropped to 5.8 percent in January 1963, and 4.7 percent in April 1964. GNP for 1963 was $43 billion, an increase of 6 percent over the preceding year. A further expansion of GNP, exceeding 5 percent, is expected for 1964.

The prosperity in 1963 (but at less than full employment) had been, however, accompanied by a sequence of disturbing events in financial markets. The budget brought out in June 1963 by the new Liberal government contained tax provisions inhibiting capital imports, and while the most important of these—a "take-over" tax designed to prevent sudden foreign acquisition of domestic stocks—was later withdrawn, confidence was badly shaken within the international financial community. This disruption of confidence was reinforced when the U. S. Government's plans for a retroactive interest equalization tax became public in July. There was an immediate slump in the bond and stock markets and a loss of foreign exchange reserves which prompted, in August, an increase in the discount rate.

A year later (the middle of 1964), these blows to confidence had been somewhat repaired. The 1964 budget message was singularly mild, and there were no new attempts to alter the free flow of capital beyond a small reduction in the withholding tax rate on companies with more than 25 percent Canadian ownership. It had, moreover, become clear that the U. S. interest equalization tax would either be withdrawn or, if implemented, would exempt Canada (at least in respect to new issues), an agreement sought, and got, with the *quid pro quo* of a promise on the part of the Canadian government that capital flows "would not be used" to expand exchange reserves at the expense of the U. S. balance of payments.

A fortuitous sequence of events has combined in the past year to spur further expansion in Canada. In the fall of 1963, wheat export contracts with Soviet countries, amounting to over $500 million, combined with new subsidies to key industries (especially automobiles), brought about an improvement in the balance of payments. Favorable prospects for additional wheat exports and a continuing trend toward manufacturing exports—partly stimulated by the Canadian devaluation—can be expected throughout 1964.

III. *Monetary Policy and the Flexible Exchange Rate System*

The flexible exchange system in effect between 1950 and 1961 raises some interesting policy issues that have not received sufficient attention in either the theoretical or financial literature. The most important is the ability of a flexible exchange system to insulate an economy from recessions originating from abroad. In theory, the exchange rate should depreciate when economic activity abroad declines, preventing the balance of trade from worsening. The foregoing discus-

Chart 1

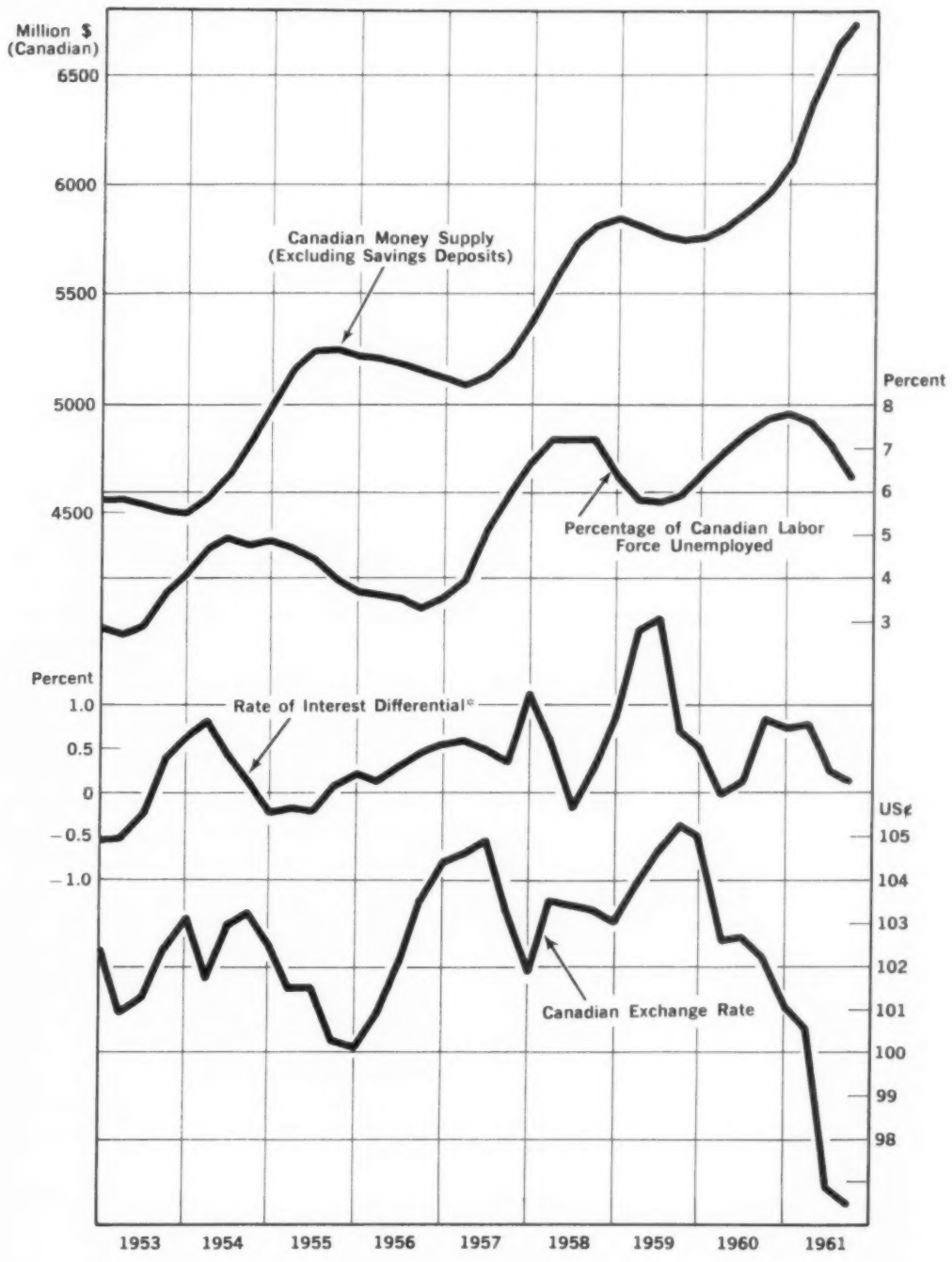
sion, however, suggests that the theory has not matched reality.

Since the Korean boom, Canada experienced the recession of 1953-1954, the boom of 1955-1956, the recession of 1957-1958, the abortive recovery of 1959, the recession of 1960-1961, and extended but sluggish expansion over 1962-1963. Each one of these features characterized business cycle events in the U. S., and Chart 1, which plots the unemployment rates in the two countries, shows that even the phasing of the cycles was similar, with the single important exception of the post-conversion loan period in Canada. Casual analysis thus rejects the theory that a flexible exchange rate system automatically insulates an economy from foreign disturbances. Whether insulation is achieved or not depends on the precise behavior of the monetary authorities.

A correct analysis of the issue requires a consideration of the cyclical coincidence of economic activity and interest rate changes. This affects the international flow of capital and therefore the exchange rate. When the U. S. economy contracts, interest rates fall. This creates an interest differential between Canada and the U. S. (unless a similar fall has occurred in Canada) in favor of Canada, and capital flows to Canada increase, pushing up the exchange rate and worsening unemployment.

Three cases need to be distinguished. (1) If the Bank of Canada takes steps to maintain a constant interest differential, the crude theory of insulation would tend to hold, as lessened Canadian exports would depreciate the exchange rate and no capital flow would result. (2) If the capital flow to Canada exactly matched the drop in exports, the exchange rate would stay constant and the results would be the same as under a fixed exchange system. (3) If a capital inflow developed that more than compensated for the drop of exports, the exchange rate would appreciate and an even more prompt international transmission of the cycle would occur.

Chart 2



* Treasury Bill (91 days) rate. Canada (tender rate Thursdays) minus U. S. (market rate).
Sources: Bank of Canada; Federal Reserve Bulletin; and D.B. S.

The close connection between employment cycles in the U. S. and Canada is amazing even for countries as closely connected through trade as Canada and the U. S., and it hints strongly that the transmission mechanism was reinforced by the flexible exchange system. If the above explanation is correct, we should observe, at the onset of a recession in the U. S., rising interest differentials in favor of Canada, increasing capital inflows, and appreciation of the Canadian dollar. Chart 2 offers some evidence for the theory: in each of the three periods after contraction began, the interest differential rose, the capital inflow increased, and the exchange rate appreciated. The chart also shows how this was directly affected by monetary policy, since these same periods coincided with periods in which the rate of monetary expansion was zero or even negative.

To prevent the exchange rate from being a destabilizing influence, it is obvious that a different monetary policy would have to be followed. Instead of allowing the exchange rate to appreciate at the onset of a recession abroad, the authorities must force it to depreciate.

One possibility is for the authorities to purchase foreign exchange when a U. S. recession begins, thus directly pushing the rate downward. This could be an effective measure (it was followed in 1961), if the expansionary monetary effect of the purchase of foreign exchange were allowed to contribute added reserves to the banking system. But in the international community it could conceivably be identified with competitive exchange rate depreciation, and challenged as contrary to the spirit of international cooperation. One of the purposes of the IMF Charter's supervision over exchange rates was to prevent competitive depreciation and beggar-thy-neighbor policies.

This does not mean that a monetary policy achieving similar effects is also ruled out. The monetary authorities can purchase securities and initiate vigorous monetary expansion. If a recession begins in the U. S. and interest rates in that country begin to fall, the Canadian authorities can at the minimum ensure that Canadian interest rates fall by an equal amount if the exchange rate is flexible. By keeping the same interest differential, the employment-stimulating effects of the flexible exchange system can be exploited. And if it is possible to reduce the interest differential still further without having harmful effects on the rest of the world, this would be doubly beneficial.

Monetary policy in general becomes a much more powerful weapon for preventing inflation or increasing employment under flexible exchange rates than it is under fixed rates. The analogy of "pushing on a string" has often been used to characterize the lack of effectiveness of monetary policy under fixed exchange rates. The analogy has little foundation even under fixed exchange rates, but it is entirely devoid of significance when the exchange rate is flexible. Under fixed exchange rates, the effectiveness of monetary policy is based primarily on its effect on interest rates, through which it can alter the profitability of purchasing one wide class of goods—durable goods—which forms a substantial fraction of all spending. But when the exchange rate is flexible *two* large classes of expenditure are affected (though not quite to the same extent): the same class of durable goods as under fixed exchange rates; and the additional class of all foreign goods. This holds even if capital is completely immobile internationally.

If capital is mobile, monetary expansion induced by positive central bank action must result in a capital outflow, and this will have some effect in reducing the decline in interest rates and moderating the increased profitability of purchasing the class of investment goods. But, *pari passu*, there will be an added stimulus to

buying domestic as opposed to foreign goods, as the capital outflow, not fully transferred by expenditure changes, further depreciates the exchange rate. In fact, if capital were completely mobile, the major stabilizing influence of monetary policy would be through the effects of the capital outflow on the exchange rate and the trade balance, and an open market purchase of government bonds would have much the same effect (except for the different central bank portfolio positions) as the purchase of additional reserves.

In the light of the above discussion, some comments on the Canadian experience are in order. The flexible exchange system was partly experimental in the sense that the theory of the subject was, at the time, inadequately developed. In defense of Canadian monetary policy during the 1950's, it might be remarked that the inflationary excesses of the 1955-1956 capital investment boom, while very moderate by immediate postwar standards, were a source of legitimate concern to the monetary authorities. By 1959, however, the situation had become entirely different, and the tight monetary policy in that and the following year suggests a faulty understanding of how the advantages of a flexible exchange system can be exploited. While concern over foreign borrowing may have been justified, the proper mechanism for reducing external borrowing was to *lower* interest rates, not raise them. An expansive monetary policy from 1959 to the present could have avoided much of the unemployment excesses which Canada has experienced in the recent past. Inflation by that time had ceased to be a serious threat.

It is important to notice too that budgetary policy, like monetary policy, has a different role in a flexible exchange system. That policy also, like monetary policy, was ineptly handled. The controversy between Central Banker Coyne and Finance Minister Fleming was over the use of tight money and the appropriateness of a budget deficit. But neither tight money nor a budget deficit were correct prescriptions for the country at the time (1961). It is true that tight money had done considerable damage to employment since 1959, but it was a mistaken belief that an increased budget deficit would be a useful corrective. An increased budget deficit without monetary expansion would raise interest rates, attract capital, appreciate the exchange rate, and worsen the trade balance with little benefit to employment. With sufficient monetary expansion a budget deficit would be unnecessary. The key question was the monetary policy followed. Had monetary policy been appropriately expansive in 1961, it would not even have been necessary to use the exchange fund to depreciate the exchange rate.

IV. *Current Policy*

The advantage of inspecting the past is to gain insight into the future. Canada has returned to a par value system, and the lessons of the flexible exchange rate system have to be applied in reverse to the present system. Budgetary policy, which theory suggests is largely ineffective under flexible rates (and in practice turned out to be ineffective), resumes its importance for employment stability under fixed exchange rates. The reasons for expecting the multiplier to be low under the flexible exchange system no longer prevail under the present fixed exchange rate system.[4]

[4] I have elaborated on the theory implicit in the above discussion in the following papers: "Capital Mobility and Stabilization Policy," *Canadian Journal of Economics & Political Science*, November 1963; "The Exchange Margin and Economic Policy," in *Money in the International Order*, ed. J. C. Murphy, Dallas, forthcoming 1964; and "Reply: Capital Mobility and Size," *Canadian Journal of Economics & Political Science*, August 1964.

Despite the renewed effectiveness of fiscal policy in Canada, it could not be urged that further strains be placed upon the Canadian fiscal system by an expansion of the budget deficit. While it would be premature to eliminate these deficits before full employment is restored, the over-commitments of governments at all levels make it advisable to resist further expansion of government programs.

Monetary policy is now tied to the needs of the foreign balance. It cannot be used with much freedom for determining the appropriate level of domestic activity. Even if the needs of the internal economy dictate a rapid expansion, the result would be an unsafe deterioration in the foreign reserve position. The fixing of the exchange rate automatically fixes, in open economies, like Canada, the direction of monetary policy.

The danger at present appears to be a repetition of the experience in 1950. It will be remembered that prior to that time the exchange rate had been appreciated in 1946, eventually enforcing austerity programs; then it was depreciated in 1949, eventually leading to massive inflows of capital and the freeing of the rate (which at once appreciated).

A similar occurrence is possible in the forseeable future. The favorable export prospects in wheat and even manufacturing markets, combined with Canadian exemption from much of the effects of the interest equalization tax, and supplemented by the reduction in wage costs per unit in international markets because of the 1962 devaluation, might easily converge at once to bring about favorable expectations and an inflow of autonomous and speculative capital. This could assume large proportions in a short space of time and lead to difficulties in financing the reserve accumulation in a non-inflationary way. Financing of reserve accumulations through open market sales of government bonds can be an aggravating rather than a disturbing force, as yields are pushed up and capital inflows are accelerated. Faced with this situation, the most likely prospect is an appreciation of the Canadian dollar.

Much of this is purely speculative, of course, and it must always be remembered that the Canadian economy is dependent upon what happens in the U. S. Yet no economist who has followed the succession of capital flows in and out of Canada in the past two decades could dismiss it as inconceivable, or even unlikely. When the choice is between domestic inflation and appreciation, the latter is politically far more likely. But, if so, the perennial question of what the appropriate rate is will again loom important. Either excessive or inadequate appreciation would be severely punished by a repetition of outward or inward capital flows.

The best solution for the Canadian economy at the prevent time is a resumption of the flexible exchange rate system. The time to release an exchange rate from a fixed value is in a period of relative calm, not after the one-sided speculative movement has been detonated. It should be introduced deliberately. An early moderate appreciation through market forces seems far preferable to what may well otherwise become a forced up-valuation to a price that is either too high or too low, and on which the prestige of a government is made to rest.

Elasticity of Expectations and the Announcement Effects of Discount Rate Policy

► FRANK G. STEINDL

In his article in an earlier issue of this journal, Warren L. Smith analyzes the "announcement effects of discount rate adjustments." [1] He accomplishes this by use of the Hicksian elasticity of expectations.[2] This paper concentrates upon an analysis of the use of the elasticity of expectations in assessing the effectiveness of monetary policy relying upon the announcement effects of discount rate policy. One purpose is to show that Smith's use of the elasticity of expectations yields correct conclusions only in a restricted case, namely, that in which interest rates are initially in equilibrium. A second and more important purpose is to indicate that, in general, the elasticity of expectations is an inaccurate tool for analyzing the announcement effects of discount rate policy.

Briefly, Smith's analysis is as follows. Assume that an increase in discount rate raises interest rates. Although Smith does not mention the cause of the rising rates, it can be assumed that open market sales have increased rates. Depending upon the elasticity of expectations, shifts in lenders' supply curves and borrowers' demand curves for loanable funds occur which may result in (a) effective, (b) ineffective, or (c) uncertain monetary stabilizing action. Assume, for example, that borrowers have inelastic expectations and that lenders have elastic expectations, an assumption which would be difficult to justify on *a priori* grounds. An increase in discount rate giving rise to an increase in interest rates would occasion borrowers' expectations of smaller percentage increases in future interest rates. Lenders,

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[1] Warren L. Smith, "The General Instruments of Monetary Control," *The National Banking Review*, 1, September 1963, pp. 61-63.

[2] J. R. Hicks, *Value and Capital*, 2d. ed.; London: Oxford University Press, 1946. On p. 205, Hicks advances a definition of the elasticity of expectations of prices which Smith translates into an elasticity of expectations of interest rates. This is defined as

$$N = \frac{r_2^e - r_1^e}{r_1^e} \Big/ \frac{r_2 - r_1}{r_1}$$

where r_1 and r_2 are the present interest rates before and after the change, and r^e_1 and r^e_2 are the expected future rates before and after the change in the present rate from r_1 to r_2. Also, in order to allow for expectations, it is necessary that $N \neq 0$. In fact, the usual (implicit) assumption is that $N > 0$.

It should be noted that Hicks' use of elasticity of expectations of interest rates (pp. 260-261) differs markedly from Smith's use.

on the other hand, would expect larger percentage increases in future rates of interest. They, therefore, "may reduce their present commitments of funds in order to have more funds available to invest later on, when interest rates are expected to be relatively more favorable. . . . Borrowers, on the other hand, may postpone their [current] borrowing. . . ."[3] Borrowers, thus, will decrease their demand for and lenders their supply of loanable funds, thereby making effective the monetary policy of an increase in discount rate. The Table on this page summarizes the effectiveness of a policy of monetary restraint for different elasticities of expectations of borrowers and lenders. For a policy of monetary ease, induced by a reduction in discount rate,

Table 1

Elasticity of Expectations, Demand-Supply of Current Loanable Funds and Effectiveness of Monetary Policy

Borrowers		Lenders		Effectiveness of Monetary Policy
Elasticity	Demand	Elasticity	Supply	
$N > 1$	increase	$N > 1$	decrease	uncertain
$N > 1$	increase	$N < 1$	increase	ineffective
$N < 1$	decrease	$N > 1$	decrease	effective
$N < 1$	decrease	$N < 1$	increase	uncertain

the assessment of effectiveness is the same, but the demand and supply changes are the opposite. In those cases where the effectiveness of monetary policy is uncertain, the actual effectiveness depends upon the relative shifts of the demand for and supply of loanable funds, something which cannot be assessed *a priori*.

It will now be shown that Smith's employment of the elasticity of expectations is useful only in a restricted case, namely that in which $r_1^e = r_1$. That is, it will be shown that in other cases a policy of an increase in discount rate followed by rising interest rates can be judged neither effective nor ineffective solely on the basis of knowledge of the relevant elasticities. In order to demonstrate this, consider the following two cases. In the first, an increase in the interest rate from r_1 to r_2 results in $r_2^e > r_2$; and in the second case, the increase in the interest rate results in $r_2^e < r_2$. The assumptions of this analysis are (a) $r_1^e \neq r_1$, that is, the interest rate is not in equilibrium and (b) $N > 0$, therefore $r_2^e > r_1^e$ [4]

In case one, where $r_2^e > r_2$ and $N > 0$, an increase in interest rates gives rise to expectations of higher future rates. Borrowers and lenders are not particularly interested in the relative percentage changes; borrowers are interested in the fact that the presence of a higher interest rate in the future will mean that postponement of current borrowing will only result in higher future interest costs.[5] In order to avoid these higher expected interest costs, they will increase their present demand for loanable funds. Lenders will also expect higher future interest rates. Thus, they, in order to take advantage of the higher future rates of interest, and also to avoid being "locked in" the securities they are presently holding, will decrease the supply of current loanable funds.

With lenders decreasing the supply of funds and borrowers increasing the demand for them, the effectiveness of the policy of increasing discount rate is always uncertain, the actual effectiveness depending on the relative shifts of the supply and demand functions. Thus, in this situation, analysis of the announcement effects of discount rate adjustments

[3] Smith, *op cit.*, p. 62.

[4] It is essential to note that when $r_1^e < r_1$, r_2^e can be less than r_2 with elastic expectations and must be less than r_2 with inelastic expectations. A similar statement about the relationship of $r_1^e > r_1$ to $r_2^e > r_2$ can be made.

[5] Albert Gailord Hart, "Making Monetary Policy More Effective," *United States Monetary Policy*, ed. Neil H. Jacoby, New York: The American Assembly, 1958, p. 192.

requires only that the elasticity of expectations not be perfectly inelastic; whether the elasticity is relatively elastic or inelastic is irrelevant. All that is necessary is that the elasticity be positive, in which case this leads to the conclusion that the policy of increasing discount rate may be either effective or ineffective; which one it will be is uncertain.

In the second case, an increase in interest rates results in the expectation of future rates higher than the previous expected rates, but lower than present interest rates (i.e., $N > 0$ and $r_2^e < r_2$). Borrowers, anticipating the lower expected future rates, will decrease their present demand for loanable funds. Lenders, in order to make capital gains when the expected lower rates obtain, will increase the supply of current loanable funds. With a decrease in the demand for and an increase in the supply of current loanable funds, the effectiveness of the policy of increasing discount rate is uncertain, the actual effectiveness depending upon the relative shifts of the demand and supply functions. This conclusion holds regardless of whether expectations are elastic or inelastic. All that is necessary is that expectations are not perfectly inelastic.

In both cases, the conclusion is that the effectiveness of the policy of increasing discount rate is uncertain. This conclusion reinforces Smith's major conclusion "that the 'psychological' effects of discount rate changes in the domestic economy—like all expectational phenomena in economics—are highly uncertain and that the discount rate as a weapon of 'psychological warfare' is of very dubious value to the Federal Reserve." [6]

In addition to these two cases, in which both borrowers and lenders are in agreement as to whether r_2^e is either greater or less than r_2, there are the additional possible situations of (a) $r_2^e > r_2$ for borrowers and $r_2^e < r_2$ for lenders, in which case the monetary policy of relying upon the announcement effects of an increase in discount rate will be unsuccessful, and (b) borrowers expecting $r_2^e < r_2$ while lenders expect $r_2^e < r_2$, in which case monetary policy will be successful. Here again, in each of these, as long as $r_1^e \neq r_1$ and $N > 0$, knowledge of only the elasticities of expectations of both borrowers and lenders is useless in determining the effectiveness of the announcement effects of discount rate policy.

From the above analysis, it can be seen that the crucial consideration is not the elasticity of expectations, but rather the expectations of borrowers and lenders with respect to where the future rate will be in relation to the present rate. If in fact this is the important relation, then the only time that the use of the elasticity of expectations can always correctly assess the effectiveness of the announcement effects of discount rate policy is when $r_1^e = r_1$; that is, when rates of interest initially are in equilibrium. If $r_1^e = r_1$ and rates rise to r_2, then it follows that (a) when $N > 1$, $r_2^e > r_2$ and (b) when $N < 1$, $r_2^e < r_2$. Thus, in this case, the elasticity of expectations proves to be an alternative way of stating that the crucial relation is that of the expected future rate to the present rate. It appears then that Warren Smith assumed implicitly that $r_1^e = r_1$. If in fact he did not make this assumption, then his analysis would at times lead to incorrect conclusions.[7] It

[6] Smith, *op. cit.*, p. 63.

[7] For example, reference to line 3 of Table 1 shows that monetary policy is effective if borrowers' expectations are inelastic and lenders' elastic. Suppose that for both borrowers and lenders $r_1^e > r^1$ and the increase in rates to r_2 yields $r_2^e > r_2$, a situation that could well occur when $N < 1$ for borrowers and must occur when $N > 1$ for lenders. With $r_2^e > r_2$, borrowers would increase the demand for and lenders would decrease the supply of loanable funds. In this case, the effectiveness of monetary policy which Smith has assessed as effective is now uncertain.

seems fairly certain, however, that Professor Smith did assume $r_1^e = r_1$, because he did not give attention to the possibility of unitary elasticities of expectations. If $N = 1$ and $r_1^e = r_1$, then $r_2^e = r_2$, a phenomenon of extremely limited interest when examining the influence of expectations.

Given that expectations of borrowers and lenders as regards the level of the future rate in relation to the present rate are important for analyzing announcement effects of discount rate policy, a question arises with respect to the conditions under which *a priori* judgment indicates that such a policy will be effective (E), ineffective (I), or uncertain (U). The table on this page depicts the various possible combinations of borrowers' and lenders' expectations and establishes the conditions under which a policy of changing discount rate will be effective, ineffective or uncertain, *ceteris paribus*, because of announcement effects.

Table 2

Interest Expectations and Effectiveness of Monetary Policy

Borrowers \ Lenders	$r_2^e > r_2$	$r_2^e = r_2$	$r_2^e < r_2$
$r_2^e > r_2$	U	I	I
$r_2^e = r_2$	E	I	I
$r_2^e < r_2$	E	E	U

The situation where, for borrowers and lenders, $r_2^e = r_2$ requires a word of explanation. In such a case, neither borrowers nor lenders on the basis of expectations would change respectively their demand or supply of loanable funds. As such, the equilibrium (dollar) quantity of loanable funds traded would be unchanged. This being the case, since the quantity of funds traded is unaltered as a result of shifts of supply and demand functions, announcement effects cannot be said to be effective, and in fact policy relying upon such effects must be judged ineffective.

From Table 2, it can be seen that an effective stabilization policy based, *ceteris paribus*, on announcement effects is insured in only three out of the nine possible combinations of borrowers' and lenders' expectations. Since there is no information concerning the particular expectational combination existing at the time of a change in discount rate, it would indeed be difficult to argue that announcement effects are effective, or for that matter ineffective, for stabilization purposes. A stronger conclusion than this follows if borrowers and lenders hold the same expectations as to the future rate in relation to the current rate; in this situation, announcement effects cannot be relied upon as a policy weapon. With borrowers and lenders holding the same expectations, only the outcomes along the main diagonal are relevant. As can be seen, none of the three outcomes insures an effective stabilization policy based on announcement effects, and in fact one outcome—that in which $r_2^e = r_2$ for borrowers and lenders—insures an ineffective policy.

Of course, as Smith acknowledges, decisions to supply and demand current loanable funds may well have their most important effects in altering the term structure of interest rates. The contention here is that expectations as to the future course of interest rates will not cause a change in the total demand and supply of loanable funds.[8] According to Smith, if borrowers and lenders have elastic expectations, then borrowers will increase their demand in the long-term market and decrease their demand in the short-term market; lenders, awaiting the expected larger percentage increase in interest rates, will shift funds from the long- to the short-term market. If inelastic expectations prevail, the opposite

[8] The Federal Reserve agrees with this contention. See, for example, *Federal Reserve Bulletin*, September 1962, p. 1124.

actions will occur; borrowers will increase demand in the short- and decrease demand in long-term market, while lenders will increase supply in the long- and decrease supply in the short-term market. The results of these changes in the term structure of rates upon the level of expenditures is unknown.[9]

It is agreed that expectations with respect to the future course of interest rates may well have their most important effects upon the term structure of rates, and it is further agreed that the effects of changes in the term structure of interest rates upon the level of expenditures are unknown. For Smith's analysis always to hold, however, the rate of interest in both long- and short-term markets must initially be in equilibrium; i.e., in both markets $r_1^e = r_1$. If interest rates are not in equilibrium when discount rate is increased, then knowledge of the elasticities of expectations alone is not always sufficient to assess correctly the relative shifts of supply and demand in both long- and short-term markets. The crucial consideration, here again, is the relation between expected future rates and present rates.

Borrowers, as long as their elasticity of expectations is not perfectly inelastic and their expectations are that future rates will be higher than present rates, will shift their demand for loanable funds from the short- to the long-term market. As long as lenders' expectations are not perfectly inelastic and as long as they also expect future rates higher than present rates, then a rise in current interest rates will induce them to shift funds to the short-term market while awaiting the expected increase in the long-term rate.[10] Thus, the changes in the term structure of interest rates that derive from Smith's case of elastic expectations of borrowers and lenders appear to be changes which would result *not necessarily* because expectations are elastic but because expectations are not perfectly inelastic and, importantly, because future rates are expected to be in excess of present rates.

In the case where expectations are not perfectly inelastic and future rates are expected to be lower than present rates, borrowers will shift funds from the long- to the short-term market; lenders will shift funds from the short- to the long-term market. These shifts of the demand for and supply of loanable funds in the short- and long-term markets are those which occur when Smith assumes inelastic expectations. The changes in the term structure of rates deriving from shifts of demand and supply functions in the short- and long-term markets occur, however, not necessarily because expectations are inelastic, but because expectations are not perfectly inelastic and future rates are expected to be lower than present rates.

From the above analysis, it can be seen that the introduction of elastic and inelastic expectations' elasticities is a source of confusion and possible error. The important consideration is the relationship of the expected rate to the present rate. It is only when interest rates are initially in equilibrium that the use of elasticities of expectations always correctly structures the relationship between expected and present rates. The only assumption concerning elasticities of expectations that is necessary when analyzing the effectiveness of announcement effects of discount rate policy is that such elasticities are positive.

[9] Smith, *op. cit.*, pp. 62-63.

[10] There is here the implicit asumption that lenders have a definite view that the expected rise in long-term rates will occur in the very near future.

Current Legal and Regulatory Developments

The second quarter of this year was a period in which there occurred a number of significant developments in the laws and regulations affecting the operations of national banks.

I. *Lending Limits*

The Comptroller's ruling relating to the use of undivided profits in determining the lending limit [1] of a national bank has been clarified and expanded. The term "unimpaired surplus funds," as used in 12 U.S.C. 84, has been ruled to include all capital accounts (other than capital stock) derived from either paid-in capital funds or retained earnings, not subject to known charges, and which are considered interchangeable by resolution of the bank's board of directors.[2] Some examples of capital accounts which are includable in the term "unimpaired surplus fund" are: surplus (paid-in or earned); undivided profits (paid-in or earned-unearned income must be deducted); tax-paid portion of valuation reserve for loans (includes amounts in reserve for loan losses for which no Federal tax deduction has been or may be taken); valuation reserve for securities; and reserve for contingencies. Accounts which are subject to known specific charges are not includable in the "unimpaired surplus fund." Some examples of such accounts are: Internal Revenue formula bad-debt reserve to the extent taxable; reserve for dividends declared; and reserve for taxes, interest and expenses.

In several related rulings, the Comptroller has held that unimpaired surplus funds may be used for the purpose of various other yardstick formulae appearing in certain statutes which affect national banks and their operation. Included in these several rulings are the capital requirements by which a national bank's investment securities are limited (12 U.S.C. 24); the limitations placed on borrowing by a national bank (12 U.S.C. 82); the minimum capital requirements for the establishment of branches (12 U.S.C. 36(c)); the limitations on the aggregate amount of a national bank's real estate (12 U.S.C. 371); and the

[1] The statutory limitation (contained in 12 U.S.C. 84) on the amount which a national bank may lend to a single borrower is 10 percent of the bank's capital and surplus. This limitation has thirteen statutory exceptions which are applicable when prescribed protective elements listed in the exception are present.

[2] As appeared in *The National Banking Review*, 1, June 1964, p. 599, the Comptroller had previously held that undivided profits which are in fact earned surplus may be considered as unimpaired surplus funds in computing the lending limit on loans to individual borrowers in 12 U.S.C. 84.

limitation on the aggregate amount of a national bank's loans to affiliate corporations (12 U.S.C. 371(c)).

In another recent ruling related to the lending limit of a national bank, the Comptroller held that the purchase or sale of mortgage loans by a bank, under an agreement to resell or repurchase at the end of a stated period, is not a borrowing subject to 12 U.S.C. 82 nor a lending subject to the lending limit of 12 U.S.C. 84 placed on national banks. It had previously been held that the purchase or sale of securities by a bank under an agreement to resell or repurchase at the end of a stated period is not a borrowing subject to the borrowing limitations of 12 U.S.C. 82, nor an obligation subject to the lending limit of 12 U.S.C. 84 placed on national banks.

A ruling has also been issued in connection with loans to an industrial development corporation which has as its purpose the construction and establishment of plant facilities for industrial tenants. The Comptroller has held that where the sole function of such development corporation in connection with a loan is to serve as a conduit for the financing of the industrial project, where repayment of the loan is to be made directly by the industrial occupant upon whose credit the bank relies in making the loan, and where the liability of the development corporation in connection with such loan to the industrial project is clearly limited to the interest of the development corporation in that project, which interest is assigned to the bank as security for that particular loan, the obligation of the development corporation in connection with such loan need not be considered in applying the bank's lending limit under 12 U.S.C. 84 to the development corporation.[3]

In a recent ruling the Comptroller held that the use of overdrafts which represent pre-arranged financing is a legal means of extending credit by a national bank. Noting that such financing is a convenient and often desirable means of extending credit, the Comptroller announced that National Bank Examiners will review such over-drafts which are of significance because of size alone for credit quality and adherence to statutory lending limits in the same manner in which they review other loans on the bank's books.

II. *Real Estate Loans*

A national bank may make real estate loans subject to certain statutory conditions and limitations (contained in 12 U.S.C. 371). However, the Comptroller has held that where a borrower pledges or assigns a real estate mortgage of another to secure a loan for his own account, the loan is not a real estate loan within the meaning of 12 U.S.C. 371, nor is it subject to the requirements thereof, since the pledged or assigned mortgage on real estate is personal rather than real property.

III. *Forest Tract Loans*

The conditions and limitations under which national banks may make loans (pursuant to 12 U.S.C. 371) on forest tracts have been liberalized by a recent enactment of the Eighty-Eighth Congress (Public Law 88-3481). National banks may now make real estate loans secured by first liens upon forest tracts which are properly managed in all respects. The maximum term of such loans has been

[3] This is an application of a principle discussed in *The National Banking Review*, 1, September 1963, p. 134. This principle is that where the obligation of the customer to repay a loan is limited to the proceeds of the property transferred as security, and the customer's obligation with respect to the collateral is limited to a warranty of validity as of the date of its transfer, the described obligations do not represent "obligations" subject to the lending limit, and the collateral does not represent an obligation of the customer.

increased to three years for unamortized loans, and fifteen years in the case of loans which are amortized at the rate of at least six and two-thirds per centum per year. Previously, the maximum term of such loans was two years for unamortized loans and ten years for fully amortized loans. This legislation also increases the maximum permissible loan from forty percent of the appraised market value of the growing timber to sixty percent of that value, plus the value of the lands and improvements thereon offered as security.

IV. *Interest Charges by a National Bank*

A national bank, under applicable Federal law (contained in 12 U.S.C. 85), may charge interest at the maximum rate permitted by applicable state law to any competing state lending institution. A ruling of the Comptroller provides that where state law permits a higher rate on a specified class of loans (for example, small loans) a national bank which makes loans at such higher rate is subject only to such limitations relating to the classification of loans as are material to the determination of a rate of interest. This ruling, based on applicable judicial interpretations of the Federal law which determines the maximum interest rate which may be charged by national banks, further held that the limitation contained in a state law as to the amount of installment loans which any bank may have outstanding to any one borrower was not material to the determination of the rate of interest permitted under the installment loan legislation, and therefore was not a limitation applicable to national banks which charged the higher rate permitted by such legislation.

V. *Bank Shares as Security*

A national bank may not, under the provisions of 12 U.S.C. 83, make any loan on the security of its own shares, nor be the purchaser or holder of any such shares, unless such security shall be necessary to prevent loss upon a debt previously contracted in good faith. It has, however, been ruled that a national bank may require that the borrower execute an agreement not to pledge such shares, execute an agreement to pledge such shares at the request of the bank at such time that a loss on the loan appears likely, or leave such shares in the bank's custody.

VI. *Letters of Credit*

The Comptroller has recently held that a national bank may give letters of credit to a customer who is a cotton handler having domestic consumption or export obligations to the Commodity Credit Corporation. Such letters of credit would be a commitment to lend a specified amount for each pound of cotton on which the cotton handler has outstanding domestic consumption or export obligations. This ruling is merely a recognition that stand-by letters of credit, and other such agreements to make loans upon the occurrence of a specified event, are a lawful exercise of the powers of a national bank and necessary to the business of banking. However, the Comptroller has reminded bankers that the making and management of such commitments require the exercise of prudent banking judgment to prevent the creation of loans in excess of the lending limits of 12 U.S.C. 84, even though such limitations are not applicable until funds are actually advanced pursuant to such commitment.

VII. *Procedures*

A revised statement of procedures relating to the Office of the Comptroller of the Currency was published on June 9, 1964, although these procedures as well as the policies and the requirements described therein were in effect prior to their publication. Various phases of the

operations and responsibilities of the Office of the Comptroller of the Currency are included in this statement of procedures. Some of the matters considered in detail are: the organization of a national bank; the conversion of a state bank into a national bank; a merger, consolidation, purchase of assets and assumption of liabilities by a District of Columbia or national bank; the establishment of branch banks and seasonal agencies; the change of location of a main or branch office; the change of a bank name; the conversion of a national bank into a state bank; the voluntary liquidation, receivership and conservatorship of a national bank; the supervision of bank operations; rules of general application; the availability of records, files and publications; and testimony and production of documents in court by employees of the Comptroller of the Currency.

VIII. *Community Development*

It has long been recognized that, under specific authority contained in 12 U.S.C. 24, national banks as a necessary business expense may make reasonable contributions to local community agencies and groups to further the physical, economic, and social development in their communities. The Comptroller, who had previously held that such contributions may take the form of an investment in a corporation organized to carry on such activities, has recently held that the aggregate investment in such corporations may not exceed 2 percent of the bank's capital and surplus.

IX. *Director's Oath*

The Comptroller has issued a clarifying opinion relating to the statute (12 U.S.C. 73) which prescribes the requirements with reference to the oath to be taken by directors. It has been ruled that a notary public who is also an officer of a national bank is not eligible to administer the oath to directors of that bank. However, it was further held that a notary public who is a director but not an officer of a national bank is eligible to administer the oath to directors of the bank.

X. *Foreign Bank Stock*

National banks are presently authorized to acquire foreign bank stock indirectly through subsidiary Edge Act or "agreement" corporations. The Comptroller has recently given recognition to the fact that a direct acquisition of foreign bank stock also involves a lawful exercise of the corporate powers of a national bank. Noting that such acquisition would offer a useful and practical supplement or alternative to the indirect acquisition of foreign bank stock, the Comptroller has stated that, although there is no objection to the indirect acquisition of such stock, direct acquisition of foreign bank stock would result in more effective supervision, regulation, and examination of national banks engaged in foreign banking and financing operations. National banks may therefore acquire and hold directly as well as indirectly stock interest in foreign banks as a means of conducting their overseas operations.

XI. *International Operations of National Banks*

The Comptroller of the Currency recently announced the adoption of a new regulation which establishes prior notification and reporting procedures for certain enumerated international operations of national banks.[4] The new regulation

[4] A discussion of a previously published proposed regulation appeared in *The National Banking Review*, 1, March 1964, pp. 429-430. A discussion of the Comptroller's request that his Office be apprised of certain international operations by national banks within 30 days of the occurrence thereof appeared in *The National Banking Review*, 1, June 1964, p. 604.

(12 C.F.R. 15) which became effective on September 7, 1964, requires prior notification to the Comptroller of the Currency by a national bank of its intention to establish a branch in a foreign country; to acquire directly a controlling interest in an Edge Act corporation, agreement corporation or foreign bank; to establish offices of such controlled corporations or foreign banks; or to acquire a controlling interest in banks or other enterprises through such corporations or foreign banks. In addition, certain other international operations, such as the acquisition of less than a controlling interest in a foreign bank, must be reported to the Comptroller within 30 days of the event. The required notifications and reports will provide the basis, where needed, for special examinations by the Comptroller's Office, and for the issuance of appropriate instructions to a bank wherever such instructions are required in the exercise of the Comptroller's supervisory responsibilities.

Several factors led to the adoption by the Comptroller's Office of these new prior notification and reporting procedures. One of these factors is the recent expansion of national bank activities in the field of international banking and finance. The number of foreign branches of national banks, for example, has risen from 89 at the end of 1956 to 123 at the end of 1963. National bank assets employed in foreign branch operations doubled from $1.3 billion at the end of 1956 to $2.6 billion at the end of 1963. The use of Edge Act and "agreement" corporation subsidiaries of national banks has shown a corresponding growth, with some 16 in operation today. The underlying causes of this expansion, particularly the quickening pace of international trade and investment, are such that continued growth can be expected.

This increasing commitment of national bank assets in overseas finance results from an admixture of the expanded activities of national banks long established in this field and the entrance of national banks which had previously not been so engaged. Thus, of the aggregate increase of 34 foreign branches in the seven year period beginning in 1957, all but four have been established by national banks that were operating foreign branches at the beginning of 1957. On the other hand, the growth in the number of Edge Act and "agreement" corporations can be attributed chiefly to their employment by national banks which previously had no such international facilities.

A second factor leading to the procedures established by the new regulation is the nature and scope of the examination and supervisory responsibilities of the Comptroller's Office. The primary responsibility is to ensure the sound financial condition of national banks. The sound condition of a bank is, of course, affected by the full range of its activities, including its overseas activities.

A significant means of determining the influence of foreign operations on the sound condition of a bank is the examination procedure. The examination of foreign branches of national banks is expressly committed to the Comptroller of the Currency by 12 U.S.C. 601. In addition, the Comptroller is empowered to examine the affairs of Edge Act and "agreement" corporation subsidiaries of national banks under the affiliate examination provisions.[5]

A number of the international operations covered by the new regulation, such as the opening of a foreign branch, represent actions which are not easily reversed. Moreover, certain of these actions may involve a substantial commitment of assets, as well as substantial risk. The new regulation's prior notification procedure permits the Comptroller to have advance knowledge of the major inter-

[5] 12 U.S.C. 481.

national financial proposals of the banks within his jurisdiction. Where needed, special examinations and appropriate instructions to a bank will be employed to safeguard the overall condition of the bank.

XII. *Collective Investment Funds*

Real estate mortgage investments in a national bank's collective investment fund were the subject of a ruling by the Comptroller's Office. It was held that an unconditional commitment from another bank, whose obligations enjoy ready marketability, to purchase a specified amount of real estate mortgages from a national bank's collective investment fund, where such commitment is enforceable by that bank, may be considered a readily marketable investment for the specified amount within the meaning of Section 9.18(b)(9)(iii) of the Comptroller's Regulation (12 C.F.R. 9). Accordingly, conventional mortgages, to the extent of the amount of such commitment, may be counted in determining the 40 percent requirement of that section.

XIII. *Loans to an Affiliate*

A national bank is limited (12 U.S.C. 371c) in the amount of loans that it may make to an affiliate, and it is also limited with respect to the security which must be obtained in connection with such loans. In this connection, it has recently been held by the Comptroller that where a loan to a third party is otherwise adequately secured, additional security in the form of capital stock or debentures or other such obligations of an affiliate need not be considered in determining the limitation contained in 12 U.S.C. 371c with respect to the aggregate amount of loans secured by stock or obligations of an affiliate.

XIV. *Travel Agents*

It has long been recognized that, incident to the powers vested in them under 12 U.S.C. 21 and 24, national banks may provide travel services for their customers and receive compensation therefor. Previously, it was held that, in connection therewith, national banks may advertise and extend such travel services for the purpose of attracting customers to the bank. It has recently been held that such services may include the sale of trip insurance and the rental of automobiles as agent for local rental services.

XV. *National Bank as Guarantor*

A recent ruling relates to the corporate authority of a national bank to act as a guarantor or surety. Generally, a national bank may not lend its credit or become a guarantor on an obligation, or bind itself as surety to indemnify others in the event of a loss, unless it has a substantial interest in the performance of the transaction involved, or has an earmarked deposit sufficient in amount to cover the bank's total liability as indemnitor. It has, however, recently been held by the Comptroller that a national bank has sufficient interest in the continued maintenance of the deposit relationship of a valued customer to support check guaranties ordinarily required by the Post Office Department.

XVI. *Corporate Practices and Procedures*

Important amendments to the disclosure regulations were announced.[6]

[6] See *The National Banking Review*, 1, September 1963, p. 138, for a discussion of the regulations issued by the Comptroller in December 1962 imposing the first financial disclosure requirements on national banks. These regula-

These amendments implemented the provisions of the recently enacted P.L. 88-467 which subjects banks to certain provisions of the Securities and Exchange Act of 1934; and the amendments cover areas where the Act is deficient (such as the number of banks affected, and new bank stock issues):

(1) Rules have been established for the use of registration statements and offering circulars by banks issuing new securities to the public. Any new national bank seeking to raise one million dollars or more, and any existing national bank with a class of securities held by 750 or more persons and seeking to raise one million dollars or more, is required to file with the Comptroller a registration statement containing information concerning the management, financial history and other items of interest to prospective shareholders. Similar information is also required to be contained in an offering circular, to be made available to any prospective purchaser of the new securities before he became legally bound to pay the purchase price.

(2) Ground rules and minimum disclosure requirements have been established to cover proxy contests involving the election of directors. Because of the mandatory cumulative voting provision of the National Bank Act, it is possible for the holders of comparatively small percentages of outstanding stock to elect directors. It becomes doubly important, therefore, for both the existing management and other shareholders to have full information as to the character of all participants in a non-management solicitation of proxies. The regulation requires that full personal histories of all such participants be filed with the Comptroller's Office and mailed to all shareholders prior to any non-management solicitation.

(3) Detailed disclosure requirements have been established for shareholders' meetings at which merger transactions are to be approved. The shareholders are required to be informed as to all of the material features of the agreement of merger, dissenters' rights, comparable market values of the stock involved in the merger, and comparative balance sheets and operating statements of each institution.

(4) Reports are now required from officers, directors and holders of 10 percent or more of outstanding stock, whenever such "insiders" bought or sold a substantial amount of the bank's shares. "Substantial amount" is defined in the regulation as 500 shares or 5 percent of the total outstanding shares, whichever is the lesser figure in the case of a particular bank. Initial reports are required of the beneficial holdings of such insiders as of October 1, 1964

XVII. *Certificates of Deposit*

The Comptroller has expressed the opinion that a certificate of deposit represents a deposit liability of the issuing bank and as such has the benefit of Federal deposit insurance. Since such certificates do represent deposits and not loans, they are excepted from the borrowing limitations contained in 12 U.S.C. 82. It was also stated that the payment of a finder's fee to a third party in connection with such certificate of deposit would not constitute a payment of interest subject to any interest limitations.

XVIII. *Sale of Commercial Paper*

It has recently been held by the Comptroller that a national bank may sell, at a discount or otherwise, its own negotiable or non-negotiable promissory notes of any maturity. It was noted in this ruling that such borrowings are an essential part of the business of banking authorized by 12 U.S.C. 21 and 24 and are recognized and limited by 12 U.S.C. 82 (which imposes limitations on borrowing by a national bank). It was further noted that the proceeds from the sale of such notes do not constitute deposits and that, therefore,

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tions required the use of annual financial reports, proxy statements before shareholders meetings, and reports of changes in ownership control of national banks.

the provisions of 12 U.S.C. 461, 462, and 1813 relating to reserves, interest limitations, and deposit insurance are not applicable. The requirements relating to registration statements and offering circulars for public offerings contained in the Comptroller's regulation (12 C.F.R. 16), discussed in Section XVI of this column in this issue of the *Review*, will not apply to a public offering of such short term paper by a national bank if the Comptroller determines in the public interest that the protection contained in the regulation is not required.

XIX. *Litigation Involving Decisions of the Comptroller*

The United States Court of Appeals for the District of Columbia Circuit has vacated judgments granting motions for summary judgment by the Comptroller of the Currency and a national bank in a case where issuance of a branch certificate by the Comptroller is contested as being in violation of the applicable branching law. The appellant competitor banks, all of whom enjoyed home office protection in an incorporated village, successfully contended that the defendant bank's new branch was located in an adjacent unincorporated area which was prohibited as a branch location because, although the area could qualify for incorporation as a village under state law, it lacked the physical characteristics of a village in a community sense. The Court of Appeals concluded that "unincorporated village" within the meaning of the applicable state statute means an area possessed of some attributes of community life or interest, and it rejected the Comptroller's definition of those words as having ignored entirely the usual and customary meaning of the word "village." Although the Comptroller's administrative interpretation of "unincorporated village" as any unincorporated area possessed merely of the minimum geographic and population requirements for incorporation under the state law was identical to the interpretation given to that law by the state banking authorities, the Court of Appeals held that the incorporation by 12 U.S.C. 36(c) of the "statute law of the state" included legislative enactments and not administrative interpretations of those enactments. *The Union Savings Bank of Patchogue, et al.* v. *James J. Saxon, Comptroller of the Currency*, No. 18, 145 (D.C. Cir. 1964).[7]

The Comptroller's approval of a branch application has been contested in a recently filed action in which it is contended that in approving the application, the Comptroller failed to apply the standard as to what constitutes a village as established by the Court of Appeals in the foregoing case. The plaintiff state bank alternatively contends that if the Comptroller did apply the proper standard, then a branch at the approved location would nonetheless be illegal inasmuch as the area in which the branch would be located is not an "unincorporated village" within the meaning of the applicable statute; i.e., the area in which the branch would be located is not possessed of some attributes of community life or interest. *Oystermen's Bank & Trust Company* v. *James J. Saxon, Comptroller of the Currency*, Civil Action No. 1717-64 (D.C.D.C. 1964).

In two other unrelated actions recently initiated against the Comptroller, it is contended by competitor banks that the establishment of a branch at locations approved by the Comptroller would be illegal inasmuch as the branch would not be in an unincorporated village separate and distinct from an unincorporated village in which another banking office is located and in which the establishment of

[7] Previous discussions of the progress of this case appeared in *The National Banking Review*, 1, September 1963, pp. 143-144; and March 1964, pp. 432-433.

such new branch would therefore be prohibited. In both cases, the Comptroller has not yet issued the contested branch certificate. *American Bank & Trust Company* v. *James J. Saxon*, Civil Action No. 4833 (D.C.W.D. Mich. 1964) and *First National Bank, Sturgis, Michigan*, v. *James J. Saxon and First National Bank of Burr Oak*, Civil Action No. 4824 (D.C.W.D. Mich. 1964).

In another case brought against the Comptroller, a competitor state bank seeks to have the Comptroller's approval of a branch application declared as being in violation of branching laws, and in contravention of the Administrative Procedure Act (5 U.S.C. 1001-1011) and the Fifth Amendment of the Constitution of the United States. The plaintiff also seeks an order requiring rescission of the certificate of authority issued by the Comptroller for the disputed branch. *First-Citizens Bank and Trust Company* v. *James J. Saxon, Comptroller of the Currency of the United States*, Civil Action No. 1589 (D.C.E.D. N.C.).

In an action by a national bank (1) for a declaratory judgment that the approval granted by the Comptroller to another national bank to establish a branch was in violation of the applicable branching laws, and that the issuance of a certificate for the establishment of the branch would likewise be in violation of such laws; (2) to enjoin the defendant Comptroller from issuing the branch certificate; and (3) to enjoin the defendant bank from establishing or operating the branch, the issue raised was whether the Comptroller abused his discretion in finding that the branch of the defendant national bank would be in a village separate and distinct from the village in which plaintiff's branch is located, and therefore unlawful. Following a trial, a final judgment for the Comptroller and the defendant national bank was entered. *Manufacturers National Bank of Detroit* v. *James J. Saxon, Comptroller of the Currency, and Michigan Bank, N. A.*, Civil Action No. 24600 (D.C.E.D. Mich. 1963).[8] In a second such action, the only issue raised was whether the Comptroller was arbitrary, capricious, abused his discretion or otherwise acted illegally in finding that the disputed branch would be located in a village separate from plaintiff bank's village. Following the court's action in the foregoing case, the plaintiff, with the consent of all parties, caused a dismissal of this case. *Manufacturers National Bank of Detroit* v. *James J. Saxon and Community National Bank of Pontiac*, Civil Action No. 25172. (D.C.E.D. Mich. 1964).[9]

A United States District Court has granted motions for summary judgment by the Comptroller of the Currency and a defendant national bank in declaratory judgment actions in which the plaintiff banks contended that the relocation of the defendant national bank's main office to a place where applicable law would prohibit the establishment of a new branch would constitute the establishment of a new branch at a prohibited location. The court held that the Comptroller of the Currency is vested with broad discretion to approve the relocation of national banks. The court, which noted that the applicable Federal statute (12 U.S.C. 30) did not oblige the Comptroller first to find "necessity" before he approved the relocation of a national bank's main office, concluded that, within the scope of judicial inquiry as established by *Community National Bank of Pontiac* v. *Saxon*, 310 F. 2d 224 (6 Cir. 1962), the Comptroller did not act arbitrarily, capriciously, or in an abuse of his discretion, but rather, that he acted in

[8] This case was reported in *The National Banking Review*, 1, March 1964, p. 432.

[9] Reported in *The National Banking Review*, 1, June 1964, p. 611.

accordance with law. The court rejected the plaintiffs' further contention that certain provisions of the state statute law or a state court's interpretation thereof in any way controlled the Federal statutory discretion given to the Comptroller of the Currency in his administration and regulation of national banks, irrespective of the fact that the defendant national bank prior to its conversion from a state bank to a national bank was previously a party to litigation in the state court in which those provisions of state law were relevant and applicable. *Traverse City State Bank* v. *Empire National Bank*, 228 F. Supp. 984 (W.D. Mich. 1964).[10]

In a recently decided case, it was contended that the acquisition of three state banks by a national bank through merger was illegal and that their operation as branches of the national bank was in violation of certain rules and regulations of the state banking commission concerning branch location. It was also alleged that this merger by the defendant national bank, the stock of which was owned by a bank holding company, was in violation of the Bank Holding Company Act of 1956, 12 U.S.C. 1841-1848. Although the court was of the opinion that the plaintiff state had no standing to challenge the validity of the establishment and operation of the three bank branches by the defendant national bank, or to maintain an action to enforce the provisions of the Bank Holding Company Act of 1956, the court stated that the rules and regulations of the state banking commission concerning branch locations were not determinative as to branch locations of national banks, and were themselves invalid because they were in conflict with the statutory plan for branch banking in the state. The court further stated that the acquisition was lawful, inasmuch as the transaction fell within the exception contained in section 1842(a)(3) of the Bank Holding Company Act of 1956, which provides that approval by the Board of Governors of the Federal Reserve System is not required when the subsidiary bank of a holding company acquires the assets of another bank. *State of South Dakota* v. *The National Bank of South Dakota et al.*, 219 F. Supp. 842 (D. S. Dakota 1963).[11] An appeal was taken to the United States Court of Appeals for the Eighth Circuit from the decision of the district court.[12] However, in another action for a declaratory judgment, the South Dakota Supreme Court has held that the rule of the state banking commission which prohibited the establishment of a branch bank more than 50 miles from the bank's main office was invalid as an unlawful attempt by the commission to exercise legislative power. *Livestock State Bank* v. *State Banking Commission*, 127 N.W. 2d 139 (S. Dakota 1964).[13] Accordingly, the branch banking issue has been dropped in the Eighth Circuit appeal and the State of South Dakota in this appeal has now raised *de novo* the issue of whether the merger was a stock acquisition such as required the prior approval of the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956.

A state banking superintendent brought an action in which he sought a judgment declaring that a proposed drive-in facility of the defendant was contrary to the applicable branch banking laws and an order restraining the defendant national bank from operating this

[10] An earlier discussion of this case appeared in *The National Banking Review*, 1, September 1963, p. 145.

[11] *The National Banking Review*, 1, September 1963, p. 143.

[12] *The National Banking Review*, 1, March 1964, p. 433.

[13] *The National Banking Review*, 1, June 1964, p. 614.

facility which was authorized by the Comptroller as an extension of its main bank office. The defendant bank contended that the facility was not a separate branch within the meaning of the law, such as either required a separate branch certificate or was prohibited by the location restrictions of the branching law. The district court, vacating a temporary restraining order, and without deciding the case on its merits, dismissed the case and held that the state banking superintendent was not a proper party plaintiff; i.e., that he did not have standing to bring the action. *W. M. Jackson, Superintendent of Banks of The State of Georgia* v. *First National Bank of Valdosta*, Civil Action No. 647 (D.C.M.D.Ga. 1964).[14]

Applicants for a state banking charter, who had been previously denied a national banking charter, sought to enjoin temporarily the Comptroller's administrative action with respect to an application for a national banking charter in the same community by another group. The plaintiffs sought the stay of administrative action pending a final disposition of their application for a state banking charter. The Comptroller thereafter agreed to consider again the plaintiffs' application for a national banking charter and also consider the application of the other bank organizers. This suit was dismissed following the Comptroller's denial of both applications. *John W. Grissom, et al.*, v. *James J. Saxon, Comptroller of the Currency*. Civil Action No. 674-64 (D.D.C. 1964).

XX. *Other Litigation*

In an action brought by a mortgagor against a mortgagee national bank for recovery of the statutory penalty for usury,[15] a state court held that the mortgagee national bank was entitled to rely on the defense that the mortgagor was estopped to maintain the action because the mortgagor had received the benefit of the settlement of three actions by the mortgagee against the mortgagor, including a mortgage foreclosure action. The court stated that the plaintiff mortgagor, who could have asserted the usury plea as a counterclaim in the foreclosure action, accepted the benefits of the settlement, waived the cause of action for usury and was thereby estopped from demanding any penalty for usury. *Clinton G. Bush Co.* v. *Franklin National Bank of L.I.*, 248 N.Y.S. 2d 990 (N.Y. 1964).

The contention that general depositors were entitled to a jury trial as a matter of right in an action against an insolvent bank was rejected by a state court. The court noted that the taking over of a state bank by a state bank commissioner is an insolvency proceeding, and in this connection found no distinction between the receivership of a private corporation and that of a state bank under the banking law. It was held that an appeal by alleged general depositors from a rejection of their claim against a bank in the hands of a state bank commissioner for liquidation was an equitable proceeding, and as such was not a matter with respect to which the parties were entitled to a jury trial as a matter of right. *In Re Bank Earlesboro*, 391 P. 2d 887 (Okla. 1964).

In a declaratory judgment action, several currency exchange operators successfully contended that a conspiracy existed between several defendants to evade the state currency exchanges act which required a license in order to engage in the business or service of, and provision of facilities for, cashing checks, drafts, money orders, or any other evi-

[14] See *The National Banking Review*, 1, June 1964, pp. 611-612.

[15] The exclusive penalty imposed by 12 U.S.C. 86 for a usurious rate of interest by a national bank is twice the amount of interest paid.

dences of money acceptable to such community currency exchange, for a fee or service charge or other consideration. Although the court noted that such licensing requirement was not applicable to one engaged in the business of selling tangible personal property at retail, it held that the defendants were engaged in the ambulatory currency exchange business under the form and guise of a retail merchandising business and therefore could not operate without a license. The court found, among other things, that in the period of one week one of the defendants sold 2,953 items of merchandise for a total of $738.25 and received checks for a total of $228,341.63 in payment of merchandise. *Chicago–Crawford Currency Exch.* v. *Thillens, Inc.* 199 N.E. 2d 295 (Ill. 1964).

In an action for a writ of mandamus to require the secretary of state to issue a charter authorizing the plaintiffs to engage in business as an industrial bank, a state supreme court held that the applicable statutory requirements did not leave to the discretion of the secretary of state the matter of issuance of a corporate charter for an industrial bank once the preliminary statutory requirements were satisfied. *Commonwealth Inves. Co. of Col.* v. *Thornton*, 135 S.E. 2d 762 (S.C. 1964).

A state bank brought an action for review of a decision of the state banking board approving an application for a new state bank. The appeal involved questions of necessity, jurisdiction of the banking board to act, notice, the proper record on appeal, and procedural due process of law. The state supreme court noted that the main question before it was whether, on timely application, where proper notice was given, the appellant from an administrative board ruling is entitled to have the recorded minutes of the board insofar as they apply to the matter under consideration made a part of the record on appeal, where the appeal statute does not expressly provide that the minutes be sent up as part of the appeal record, and where the appellant assigns as error certain deficiences in the minutes. Noting that in order for there to be a reversible error there must be a clear showing that the error claimed is "substantially prejudicial" to the appellant and to the public, and finding no such reversible error, the state supreme court affirmed the decree of the lower court sustaining the decision of the state banking board. *Hernando Bank* v. *Davidson*, 164 So. 2d 403 (Miss. 1964).

XXI. *Legislation*

Legislation, other than that discussed in earlier issues of the *Review*,[16] which is of special interest to national banks and to financial institutions generally, has been introduced in the eighty-eighth Congress. The following is a summary of the purposes of certain of these bills:

1. provide for public hearings in connection with the chartering of national banks (H.R. 11717);

2. amend various provisions of the Administrative Procedure Act, to clarify and protect the right of the public to information and for other purposes (S. 1663);[17]

3. make all restrictions on branching by state banks imposed by the law of any state equally applicable to national banks located within such state (H.R. 11716);

4. amend the provision in the federal law relating to the establishment and retention

[16] *The National Banking Review*, 1, December 1963, pp. 273-277; March 1964, pp. 437-438; and June 1964, pp. 615-616.

[17] As introduced, that section of the bill relating to agency records would require that records of the Comptroller's Office and other agencies which regulate and supervise financial institutions be open and available to the general public; another section of this bill is said to require extensive record and public administrative proceedings in connection with new bank, branch, merger and other applications filed with the Comptroller.

of branches by national banks (H.R. 11298 and H.R. 11517);

5. establish a mint of the United States in the State of New York (S. 2934);

6. provide that coins of the United States hereafter minted shall bear no mark or inscription signifying either the place or the date of coinage (S. 2870);

7. authorize the Secretary of the Treasury to enter into contracts in connection with the production of coins (H.R. 11217);

8. authorize the mint to inscribe the figure 1964 on all coins until adequate supplies of coins are available (S. 2950);

9. extend for two years the authority of the Federal Reserve banks to purchase United States obligations directly from the Treasury (H.R. 11499, S. 2891);

10. authorize the free use of the mails in making reports required by law of certain payments to others (H.R. 10967);

11. authorize the establishment of Federal mutual savings banks (H.R. 12142, S. 3050);

12. provide for notice to the Federal banking agencies of change in control of management of banks insured by the Federal Deposit Insurance Corporation (H.R. 12267);

13. eliminate cumulative voting of shares of stock in the election of directors of national banks unless provided for in the bank's articles of association (H.R. 12292);

14. authorize a one-check payroll service plan under which all Federal agencies would credit directly designated financial institutions for the amount each employee earns (H.R. 11911, S. 2937).

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Current Banking and Economic Developments

I. *An Overview*

There are few factors on the economic horizon which give cause for concern about the current economic picture or our rate of economic growth, except for the rate of unemployment, which was 5.1 percent, seasonally adjusted, in August, but 0.4 percent lower than in August 1963.

Between the second quarters of 1963 and 1964, Gross National Product in current dollars rose by 7.1 percent to $618.6 billion, while the rise in constant dollars was 5.2 percent. Between the first and second quarters of 1964, GNP rose 1.6 percent in current dollars, and 1.2 percent in constant dollars. Three-fourths of the increase in the total production of goods and services over the last year or quarter has been in real terms. Industrial production rose 6 percent between August 1963 and 1964.

Between June 30, 1963 and 1964, national banks had a 7.6 percent rise in their assets. This is less than the June-June percent change for either 1961-1962 (8.9 percent) or 1962-1963 (8.8 percent), even though the seasonally adjusted money supply (currency and demand deposits) rose by 3.8 percent between July 1963 and 1964. Between July 1961 and 1962, the money supply rose by only 2.2 percent, and it rose by 3.4 percent between July 1962 and 1963.

While the value of securities held by national banks did not change between July 1963 and 1964, there were continuations of previous changes in the components. There was a 7.2 percent decline in national bank holdings of U. S. governments, and a 16 percent increase in their holdings of state and local obligations.

On the liability side of the accounts, total demand deposits held by national banks rose by 3.2 percent over the year ending on June 30, 1964, less than the 4.9 percent for the year ending June 1963, or 5.0 percent for the year ending June 1962. The rate of increase of time and savings deposits has declined too. Comparing various end of June data, we see that national banks had an increase in time and savings deposits of 13.1 percent in 1963-1964; 15.2 percent in 1962-1963; and 16.8 percent in 1961-1962. Over the four year period 1961-1964, time and savings deposits have risen from 31.8 percent to 37.9 percent of the liabilities of national banks.

II. *Recent Series*

Since the September 1963 call for Reports of Condition, the Comptroller of the Currency has been collecting data on direct lease financing, and Federal funds purchased and sold.

On June 30, 1964, there were 71 national banks in 29 states engaged in direct lease financing. There has been a steady rise in the number of national banks in this field. When these data were first collected as of September 30, 1963, there were 27 national banks in 19 states doing direct lease financing. In this nine month period the dollar volume of direct lease financing has risen from $5 million to $47 million.

As would be expected, the number of national banks purchasing Federal funds declined as of June 30, 1964, to 152, as compared with either December 20, 1963 (174), or April 15, 1964 (218). This decline is part of the seasonal pattern whereby commercial banks tend to reduce some of their liabilities at the middle and end of the year. On June 30, national banks had holdings of $787 million of Federal funds purchased, as compared with $1,309 million on December 20, 1963, and $1,328 million on April 15, 1964.

In each of the last four call reports there has been a consistent pattern relating to Federal funds sold—the number of national banks so involved has been larger than the number purchasing Federal funds. There were 204 national banks selling Federal funds on September 30, 1963; 400 on December 20, 1963; 390 on April 15, 1964; and 246 on June 30, 1964. Since purchases and sales of Federal funds may take place between financial institutions other than national banks, there is only a rough coincidence between the volume of purchases and sales.

III. *Banking Structure*

Only one more national bank was chartered in the second quarter of 1964 than in the first three months of the year when 57 national banks were chartered. Of the 58 national banks chartered in the April-June period, 12 were in California, 4 in Colorado, and 6 each were in Florida and Texas. The remaining 30 national banks were chartered in 17 states. No new national banks were chartered in 29 states and the District of Columbia during this three month period. These data are set out in Table 9, and parallel the situation for the first quarter.

When conversions are excluded from those new national bank charters issued, there were 49 primary national bank charters issued in the second quarter of the year (see Table 8), and a total of 100 issued during the period January 1—June 30, 1964 (see Table 10). In addition to these 100 new national banks, during the first six months of 1964, there were 2 net additions to the number of state member banks, and 57 more insured nonmember commercial banks. This total of 159 additional commercial banks is 34 more than the number chartered or opened during the first half of 1963. While the same number of new insured nonmember commercial banks were opened during the first half of both 1963 and 1964, there was one less new state member bank and 35 more primary national bank charters issued in the latter period.

There were 32 more *de novo* branch applications approved for national banks in the second quarter of the year than in the first quarter, when there were 160 approvals. The 192 approvals during the period April 1—June 30 were distributed among 31 states, including California (27), Maryland (6), Massachusetts (5), Michigan (11), New Jersey (7), New York (16), North Carolina (10), Ohio (21), Oregon (6), Pennsylvania (13), South Carolina (5), Tennessee (11), Virginia (13), and Washington (5). No *de novo* branch applications were approved for 20 states, including the following no-branch states: Colorado, Florida, Illinois, and Texas. Since there is a time lag between the approval of an application for a national bank branch and the actual opening of the branch, there is usually

a difference between approvals and openings for a given period of time. In the second quarter, 199 branches of national banks opened for business (see Table 12), with the distribution approximating the above mentioned approvals. The data in Table 13 show the distribution of the 199 branches of national banks opened for business. Almost 70 percent of these branches were in communities of less than 25,000 inhabitants, and over 42 percent were branches of national banks with resources of less than $25 million. There were 9 branches discontinued or consolidated, with the result that on June 30, 1964, there were 7,553 branches of national banks in operation. This was 190 more branches in operation than on March 31, 1964.

The structure of the national banking system on June 30, 1964, is set forth in Table 1. There were 4,702 national banks, including 1,188 with branches; 3,514 national banks were "unit" banks. Including the 7,553 branches in operation on that date, the total number of national banking offices equaled 12,255.

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Selected Statistical Data

Table No.	*Title of Table*
1	Number of national banks and banking offices, by states, June 30, 1964
2	Number, total and principal assets of national banks, by states, April 15, 1964
3	Selected liabilities of national banks, by states, April 15, 1964
4	Capital accounts of national banks, by states, April 15, 1964
5	Number of national banks, total and principal assets of national banks, by states, June 30, 1964
6	Selected liabilities of national banks, by states, June 30, 1964
7	Capital accounts of national banks, by states, June 30, 1964
8	Status of applications for national bank charters, and charters issued, April 1–June 30, 1964
9	National bank charter applications, and charters issued, by states, April 1–June 30, 1964; received, approved, rejected, abandoned, and pending as of June 30, 1964
10	Insured commercial banks chartered, by type of bank and state, 1963, and January 1–June 30, 1964
11	De novo branch applications of national banks, by states, April 1–June 30, 1964; received, approved, rejected, abandoned, and pending as of June 30, 1964
12	Branches of national banks; in operation March 31, 1964, opened for business, discontinued, or consolidated, April 1–June 30, 1964, and branches in operation June 30, 1964
13	Branches of national banks opened for business, by community size and size of bank, April 1–June 30, 1964
14	Mergers, April 1–June 30, 1964

Table 1.—Number of national banks and banking offices, by states, June 30, 1964

State	NATIONAL BANKS			Number of branches of national banks	Number of national banking offices‡
	Total	Unit	With branches		
United States†	4,702	3,514	1,188	7,553	12,255
Alabama	78	56	22	99	177
Alaska	5	0	5	38	43
Arizona	3	0	3	158	161
Arkansas	62	40	22	39	101
California	71	45	26	1,591	1,662
Colorado	110	110	0	0	110
Connecticut	24	9	15	139	163
Delaware	5	4	1	3	8
District of Columbia	7	0	7	42	49
Florida	177	177	0	0	177
Georgia	54	31	23	100	154
Hawaii	2	0	2	39	41
Idaho	10	4	6	86	96
Illinois	407	407	0	0	407
Indiana	123	67	56	229	352
Iowa	101	83	18	20	121
Kansas	169	145	24	24	193
Kentucky	83	44	39	104	187
Louisiana	47	18	29	119	166
Maine	22	8	14	61	83
Maryland	48	25	23	162	210
Massachusetts	92	36	56	287	379
Michigan	90	44	46	321	411
Minnesota	192	190	2	6	198
Mississippi	30	9	21	37	67
Missouri	88	75	13	13	101
Montana	47	47	0	0	47
Nebraska	122	106	16	16	138
Nevada	3	1	2	29	32
New Hampshire	50	40	10	10	60
New Jersey	144	53	91	367	511
New Mexico	33	15	18	44	77
New York	207	112	95	723	930
North Carolina	31	9	22	237	268
North Dakota	40	36	4	4	44
Ohio	218	102	116	437	655
Oklahoma	216	193	23	23	239
Oregon	11	6	5	195	206
Pennsylvania	401	256	145	669	1,070
Rhode Island	4	0	4	52	56
South Carolina	26	7	19	154	180
South Dakota	33	28	5	34	67
Tennessee	74	33	41	168	242
Texas	534	534	0	0	534
Utah	11	7	4	50	61
Vermont	28	18	10	25	53
Virginia	124	67	57	260	384
Washington	27	11	16	314	341
West Virginia	76	76	0	0	76
Wisconsin	106	95	11	23	129
Wyoming	35	35	0	0	35
Virgin Islands	1	0	1	2	3
D.C.—all*	14	1	13	74	88

* Includes national and nonnational banks in the District of Columbia, all of which are surpervised by the Comptrolle of the Currency.

† Includes Virgin Islands.

‡ Number of banking offices is the sum of total national banks and number of branches of national banks.

Table 2.—Number, total, and principal assets of national banks, by states, April 15, 1964

(Dollar amounts in millions)

State	Number of banks	ASSETS								
		Total Assets	Cash Assets§	U. S. Government obligations, net△	State and local securities, net△	Other bonds, notes, net△	Loans and discounts, net△	Federal funds sold	Direct lease financing	Fixed Assets
United States†	4,674	$173,241	$30,207	$32,297	$17,185	$2,189	$85,126	$1,443	$36	$2,640
Alabama	75	2,094	386	436	221	21	967	20	0	32
Alaska	5	214	32	52	12	6	103	1	0	7
Arizona	3	1,428	186	177	89	13	907	4	0	32
Arkansas	61	944	178	180	117	18	427	7	‡	14
California	62	25,190	4,215	3,697	2,209	285	13,629	226	22	433
Colorado	106	2,045	387	374	126	8	1,080	10	‡	46
Connecticut	24	1,553	233	198	228	8	838	6	‡	33
Delaware	5	22	3	7	1	‡	11	0	0	1
Dist. of Col.	7	1,207	220	321	63	5	561	10	0	20
Florida	173	4,656	1,005	1,171	345	93	1,863	31	1	117
Georgia	54	2,233	496	316	155	13	1,173	20	‡	45
Hawaii	2	345	34	62	32	1	189	9	3	12
Idaho	10	605	75	129	49	5	333	‡	0	11
Illinois	406	16,274	2,734	3,295	1,766	342	7,607	183	‡	121
Indiana	123	3,685	633	912	284	67	1,678	37	1	50
Iowa	101	1,377	311	298	112	19	601	12	‡	17
Kansas	168	1,680	278	418	192	25	735	6	0	19
Kentucky	83	1,283	217	331	118	22	565	6	‡	17
Louisiana	45	2,414	477	577	215	17	1,060	18	1	30
Maine	22	415	64	68	32	4	232	3	0	9
Maryland	48	1,683	265	349	150	20	849	10	0	27
Massachusetts	93	4,846	1,015	720	307	17	2,601	46	‡	58
Michigan	90	6,674	1,028	1,512	793	37	3,148	20	2	76
Minnesota	191	3,735	719	764	297	80	1,776	6	1	62
Mississippi	30	547	103	117	63	4	246	1	0	10
Missouri	88	2,792	635	536	247	19	1,276	27	‡	34
Montana	47	558	78	129	46	13	274	3	‡	11
Nebraska	122	1,508	319	280	103	20	741	18	‡	19
Nevada	3	437	51	70	44	‡	248	2	0	17
New Hampshire	51	409	70	79	25	1	223	1	0	8
New Jersey	146	5,702	753	1,124	770	128	2,782	33	1	77
New Mexico	32	637	108	166	35	3	298	14	0	10
New York	207	18,119	3,231	2,600	2,164	155	8,953	256	1	233
North Carolina	31	1,561	335	198	113	37	833	2	0	29
North Dakota	40	495	60	134	47	15	222	2	‡	11
Ohio	217	7,915	1,322	1,619	762	89	3,912	62	‡	103
Oklahoma	213	2,903	603	642	223	43	1,304	26	‡	48
Oregon	11	2,317	375	388	193	19	1,253	20	‡	48
Pennsylvania	405	12,040	1,607	2,379	1,930	159	5,575	98	2	158
Rhode Island	4	654	57	72	156	4	352	1	0	8
South Carolina	26	854	168	170	55	15	410	13	0	18
South Dakota	33	551	74	142	36	10	276	0	0	10
Tennessee	74	3,249	645	605	286	33	1,579	36	0	43
Texas	532	12,701	2,647	2,299	1,116	171	6,016	72	‡	273
Utah	11	624	104	77	51	4	373	2	0	10
Vermont	28	252	25	54	16	3	147	3	0	4
Virginia	124	2,750	410	517	241	46	1,464	12	0	46
Washington	26	3,170	558	568	264	23	1,638	28	0	59
West Virginia	76	897	131	295	64	10	373	6	0	14
Wisconsin	104	2,595	486	572	200	41	1,220	16	‡	42
Wyoming	35	374	59	92	24	2	185	0	‡	10
Virgin Islands	1	28	3	7	1	0	17	0	0	‡
D.C.—all*	14	2,163	384	555	93	10	1,059	20	0	29

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Less than $500,000.
§ Cash balances with other banks and cash items in process of collection.
△ Net of valuation reserves.

Note: Data may not add to totals because of rounding.

Table 3.—Selected liabilities of national banks, by states, April 15, 1964

(Dollar amounts in millions)

State	Total liabilities	Total deposits	Demand deposits, total	Time and savings deposits, total	Demand deposits, IPC§	Time deposits, IPC§	Time certificates of deposit	Federal funds purchased
United States†	$159,183	$153,359	$88,738	$64,620	$68,348	$59,510	$13,430	$1,328
Alabama	1,918	1,877	1,221	657	941	629	138	6
Alaska	201	199	109	90	82	58	33	0
Arizona	1,338	1,300	704	596	571	570	62	‡
Arkansas	867	853	580	274	435	266	109	5
California	23,526	22,440	10,533	11,907	8,784	10,582	739	293
Colorado	1,880	1,829	1,065	764	863	696	188	13
Connecticut	1,422	1,354	909	444	809	397	73	14
Delaware	20	20	10	10	9	10	‡	0
Dist. of Col.	1,113	1,092	756	336	677	324	74	5
Florida	4,288	4,191	2,795	1,396	2,098	1,250	325	18
Georgia	2,050	1,962	1,429	533	1,057	481	206	9
Hawaii	314	309	167	142	129	117	42	0
Idaho	561	552	322	230	254	229	27	0
Illinois	14,938	14,509	8,314	6,195	6,437	5,850	1,427	103
Indiana	3,373	3,258	2,066	1,192	1,595	1,162	285	22
Iowa	1,267	1,240	853	387	565	381	159	15
Kansas	1,523	1,498	1,041	456	721	423	150	9
Kentucky	1,163	1,143	797	346	662	331	90	1
Louisiana	2,203	2,159	1,548	611	1,087	550	111	14
Maine	374	356	203	153	174	152	6	5
Maryland	1,543	1,487	945	542	755	515	59	20
Massachusetts	4,373	4,130	3,126	1,004	2,414	951	271	41
Michigan	6,235	5,983	2,774	3,210	2,243	2,832	665	22
Minnesota	3,429	3,333	1,939	1,394	1,362	1,332	810	27
Mississippi	502	490	330	160	223	153	75	5
Missouri	2,550	2,470	1,732	738	1,242	702	281	41
Montana	520	504	284	220	228	211	111	4
Nebraska	1,377	1,348	998	350	703	342	185	9
Nevada	406	397	233	164	179	151	11	0
New Hampshire	368	345	242	103	197	95	18	5
New Jersey	5,282	5,086	2,613	2,474	2,156	2,394	180	27
New Mexico	590	582	376	206	288	182	48	0
New York	16,578	15,484	8,815	6,669	6,219	6,084	1,445	279
North Carolina	1,422	1,345	927	417	732	344	154	31
North Dakota	460	451	246	205	197	195	146	0
Ohio	7,255	7,020	3,960	3,059	3,027	2,923	476	52
Oklahoma	2,621	2,568	1,777	791	1,266	770	254	21
Oregon	2,147	2,107	1,077	1,031	893	912	71	0
Pennsylvania	10,879	10,545	5,278	5,267	4,345	4,916	1,201	40
Rhode Island	603	585	243	342	202	332	48	3
South Carolina	784	753	619	134	503	120	29	5
South Dakota	512	502	283	220	220	200	135	‡
Tennessee	2,999	2,927	1,780	1,147	1,153	1,062	392	11
Texas	11,605	11,227	7,385	3,842	5,389	3,285	1,386	123
Utah	571	551	270	282	211	270	62	10
Vermont	229	223	83	141	74	138	6	0
Virginia	2,506	2,431	1,335	1,097	1,108	1,033	136	11
Washington	2,925	2,849	1,685	1,165	1,353	1,154	102	6
West Virginia	807	795	475	319	365	318	29	0
Wisconsin	2,398	2,340	1,297	1,044	1,009	986	375	1
Wyoming	341	334	181	152	136	137	25	1
Virgin Islands	26	25	10	15	7	10	0	0
D.C.—all*	2,004	1,963	1,327	636	1,208	619	99	6

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Less than $500,000.
§ IPC deposits are those of individuals, partnerships, and corporations.

Note: Data may not add to totals because of rounding.

Table 4.—Capital accounts of national banks, by states, April 15, 1964

(Dollar amounts in millions)

State	Total capital accounts	Debentures	Preferred stock	Common stock	Surplus	Undivided profits	Reserves
United States†	$14,059	$223	$28	$4,131	$6,877	$2,423	$376
Alabama	176	0	0	54	75	35	12
Alaska	12	0	0	5	4	3	1
Arizona	90	0	0	25	49	12	3
Arkansas	77	0	0	24	33	19	2
California	1,664	111	0	448	794	302	9
Colorado	165	0	0	56	73	35	1
Connecticut	131	0	0	39	69	23	1
Delaware	2	0	0	1	1	‡	‡
District of Columbia	93	0	0	28	49	13	3
Florida	368	0	‡	143	167	47	11
Georgia	182	0	0	45	89	25	23
Hawaii	31	0	0	9	14	7	2
Idaho	44	0	0	14	20	8	2
Illinois	1,336	0	0	483	633	167	53
Indiana	312	0	0	82	161	62	8
Iowa	110	0	0	28	51	29	2
Kansas	157	0	1	48	71	34	3
Kentucky	120	0	0	30	62	27	2
Louisiana	211	0	3	51	117	39	1
Maine	41	0	0	15	15	10	1
Maryland	141	2	0	37	75	21	6
Massachusetts	473	0	0	114	278	74	7
Michigan	439	0	3	127	225	75	9
Minnesota	305	0	0	89	144	67	5
Mississippi	45	0	0	12	31	2	1
Missouri	242	0	0	74	111	50	8
Montana	38	0	0	15	16	7	‡
Nebraska	131	0	0	38	56	34	3
Nevada	31	0	0	16	12	3	‡
New Hampshire	41	0	0	8	22	10	2
New Jersey	420	0	‡	127	214	70	10
New Mexico	47	0	0	17	18	4	9
New York	1,541	32	20	427	704	261	97
North Carolina	139	15	0	35	69	18	1
North Dakota	35	0	0	12	14	8	1
Ohio	661	2	‡	193	353	109	3
Oklahoma	282	10	0	79	113	76	4
Oregon	170	0	0	57	64	48	‡
Pennsylvania	1,161	15	‡	276	673	182	14
Rhode Island	51	0	0	14	26	11	0
South Carolina	70	0	‡	17	41	11	1
South Dakota	40	0	0	14	16	9	1
Tennessee	250	‡	‡	70	129	44	6
Texas	1,097	36	0	389	480	162	30
Utah	52	0	0	15	26	10	2
Vermont	22	0	1	7	9	5	1
Virginia	245	0	0	72	132	39	2
Washington	244	0	0	76	111	55	1
West Virginia	90	0	0	22	44	19	4
Wisconsin	197	0	0	49	107	34	7
Wyoming	33	0	0	6	18	9	1
Virgin Islands	2	0	0	‡	1	‡	0
D.C.—all*	158	0	0	43	88	21	6

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Includes Virgin Islands.

‡ Less than $500,000.

Note: Data may not add to totals because of rounding.

Table 5.—Number, total, and principal assets of national banks, by states, June 30, 1964

(Dollar amounts in millions)

State	Number of banks	ASSETS								
		Total assets	Cash assets§	U. S. Government obligations, net△	State and local securities, net△	Other bonds, notes, net△	Loans and discounts, net△	Federal funds sold	Direct lease financing	Fixed assets
United States†	4,702	$175,107	$29,513	$31,551	$17,591	$2,191	$88,519	$761	$47	$2,683
Alabama	78	2,117	394	422	229	22	994	11	0	33
Alaska	5	235	39	58	13	7	109	0	0	7
Arizona	3	1,464	182	181	88	14	935	10	0	33
Arkansas	62	960	187	166	118	16	451	3	‡	15
California	71	24,931	3,773	3,463	2,304	260	14,218	39	33	431
Colorado	110	2,054	386	374	126	6	1,086	11	‡	48
Connecticut	24	1,598	259	192	221	4	871	7	‡	34
Delaware	5	22	3	6	1	‡	11	0	0	1
Dist. of Col.	7	1,243	243	303	66	5	585	14	0	20
Florida	177	4,495	890	1,062	363	85	1,925	15	‡	120
Georgia	54	2,300	509	316	168	16	1,223	6	1	45
Hawaii	2	367	47	64	35	1	204	0	0	12
Idaho	10	602	79	107	49	4	348	0	0	11
Illinois	407	16,514	2,601	3,355	1,839	413	7,836	65	‡	120
Indiana	123	3,914	734	922	309	63	1,771	37	1	51
Iowa	101	1,355	302	283	114	19	612	0	‡	18
Kansas	169	1,724	304	405	195	25	757	10	‡	20
Kentucky	83	1,321	246	302	123	19	602	5	‡	17
Louisiana	47	2,452	484	562	224	16	1,097	18	1	30
Maine	22	424	60	70	36	3	243	1	0	9
Maryland	48	1,758	312	332	144	18	879	30	0	27
Massachusetts	92	4,901	932	698	337	16	2,723	57	‡	57
Michigan	90	7,013	1,096	1,533	840	28	3,348	20	5	78
Minnesota	192	3,849	711	743	308	81	1,894	15	1	64
Mississippi	30	551	101	109	65	4	257	0	0	13
Missouri	88	2,824	622	516	258	18	1,325	32	‡	34
Montana	47	562	81	119	46	11	289	0	‡	11
Nebraska	122	1,462	282	258	107	20	767	0	‡	19
Nevada	3	446	54	68	42	‡	257	1	0	18
New Hampshire	50	407	66	66	28	1	234	1	0	8
New Jersey	144	5,825	775	1,110	792	124	2,878	25	1	78
New Mexico	33	667	119	163	36	3	314	18	0	11
New York	207	18,162	2,975	2,741	2,125	152	9,315	38	1	240
North Carolina	31	1,569	296	180	122	38	863	26	0	29
North Dakota	40	489	57	121	47	14	235	0	‡	11
Ohio	218	8,017	1,288	1,622	777	97	4,035	44	‡	103
Oklahoma	216	2,957	616	625	230	42	1,365	13	1	50
Oregon	11	2,276	303	385	195	10	1,307	0	‡	50
Pennsylvania	401	12,329	1,756	2,272	1,925	162	5,819	95	1	159
Rhode Island	4	672	62	68	155	4	365	4	0	8
South Carolina	26	855	163	168	56	12	426	7	0	18
South Dakota	33	548	67	132	36	10	287	0	0	10
Tennessee	74	3,318	636	586	307	35	1,674	14	0	44
Texas	534	12,709	2,649	2,198	1,104	152	6,154	47	‡	282
Utah	11	619	104	68	56	5	372	2	0	10
Vermont	28	256	28	52	18	2	150	1	0	4
Virginia	124	2,800	413	491	248	41	1,537	5	‡	48
Washington	27	3,213	532	566	264	36	1,708	9	0	57
West Virginia	76	912	146	279	66	10	392	1	0	14
Wisconsin	106	2,643	484	576	209	46	1,258	7	‡	44
Wyoming	35	384	61	89	24	3	195	0	‡	10
Virgin Islands	1	26	2	5	1	0	18	0	0	‡
D.C.—all*	14	2,189	386	532	97	10	1,106	16	0	29

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Less than $500,000.
§ Cash balances with other banks and cash items in process of collection.
△ Net of valuation reserves.

Note: Data may not add to totals because of rounding.

Table 6.—Selected liabilities of national banks, by states, June 30, 1964

(Dollar amounts in millions)

State	LIABILITIES							
	Total liabilities	Total deposits	Demand deposits, total	Time and savings deposits, total	Demand deposits, IPC§	Time deposits, IPC§	Time certificates of deposit	Federal funds purchased
United States†	$160,810	$155,980	$89,681	$66,299	$66,030	$60,999	$14,096	$787
Alabama	1,938	1,901	1,220	681	909	649	146	‡
Alaska	222	220	128	92	90	59	32	0
Arizona	1,351	1,312	699	613	534	586	63	0
Arkansas	882	871	587	284	424	276	112	2
California	23,211	22,417	10,187	12,230	8,210	10,841	837	59
Colorado	1,886	1,852	1,060	792	816	715	206	7
Connecticut	1,466	1,406	951	455	778	407	76	3
Delaware	20	20	10	10	10	10	‡	0
Dist. of Col.	1,148	1,119	777	343	673	330	73	5
Florida	4,120	4,012	2,593	1,420	1,915	1,268	337	20
Georgia	2,096	1,994	1,453	541	1,008	485	208	47
Hawaii	336	331	185	146	122	120	44	0
Idaho	558	549	313	236	229	235	29	0
Illinois	15,168	14,802	8,428	6,374	5,981	5,989	1,464	116
Indiana	3,601	3,486	2,247	1,239	1,535	1,207	325	26
Iowa	1,245	1,221	817	405	549	395	169	16
Kansas	1,565	1,538	1,067	471	695	435	152	12
Kentucky	1,200	1,184	826	359	658	340	93	0
Louisiana	2,238	2,202	1,567	635	1,061	567	117	5
Maine	383	369	215	155	178	153	5	3
Maryland	1,617	1,574	1,005	569	746	532	72	7
Massachusetts	4,424	4,242	3,164	1,077	2,321	1,020	336	18
Michigan	6,564	6,418	3,179	3,239	2,284	2,901	673	4
Minnesota	3,542	3,434	2,025	1,410	1,294	1,350	820	44
Mississippi	506	493	325	168	216	161	80	6
Missouri	2,582	2,536	1,783	752	1,230	720	291	15
Montana	523	505	280	225	215	214	114	3
Nebraska	1,331	1,303	938	364	665	356	197	12
Nevada	411	399	232	168	169	156	11	0
New Hampshire	366	351	248	103	192	95	16	3
New Jersey	5,404	5,250	2,708	2,541	2,176	2,462	212	12
New Mexico	618	610	398	213	278	187	46	0
New York	16,583	15,589	8,830	6,759	6,348	6,194	1,458	146
North Carolina	1,425	1,354	915	439	681	366	170	28
North Dakota	454	442	233	209	188	198	151	2
Ohio	7,349	7,166	4,046	3,120	2,957	2,973	477	18
Oklahoma	2,665	2,629	1,816	812	1,248	775	258	6
Oregon	2,100	2,054	1,031	1,023	826	930	71	0
Pennsylvania	11,164	10,881	5,497	5,384	4,268	5,028	1,269	25
Rhode Island	621	605	248	357	187	345	52	0
South Carolina	784	752	614	138	486	125	29	1
South Dakota	508	498	273	225	203	201	137	‡
Tennessee	3,066	3,001	1,749	1,252	1,094	1,143	472	4
Texas	11,607	11,347	7,390	3,957	5,300	3,369	1,414	101
Utah	567	556	267	289	205	269	62	2
Vermont	234	228	85	144	72	142	6	‡
Virginia	2,554	2,488	1,359	1,129	1,054	1,062	156	8
Washington	2,965	2,899	1,701	1,199	1,263	1,190	120	2
West Virginia	822	807	483	324	360	322	30	1
Wisconsin	2,444	2,396	1,335	1,061	988	999	381	1
Wyoming	351	344	186	158	132	139	27	2
Virgin Islands	24	22	9	14	7	10	0	0
D.C.—all*	2,029	1,979	1,336	643	1,176	624	99	5

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Less than $500,000.
§ IPC deposits are those of individuals, partnerships, and corporations.

Note: Data may not add to totals because of rounding.

Table 7.—Capital accounts of national banks, by states, June 30, 1964

(Dollar amounts in millions)

State	Total capital accounts	Debentures	Preferred stock	Common stock	Surplus	Undivided profits	Reserves
United States†	$14,297	$304	$28	$4,162	$6,950	$2,491	$362
Alabama	179	0	0	54	76	36	12
Alaska	12	‡	0	5	4	3	1
Arizona	113	14	0	27	55	14	3
Arkansas	78	0	0	24	34	19	2
California	1,719	122	0	458	803	328	10
Colorado	168	0	0	57	74	36	1
Connecticut	132	0	0	39	69	23	1
Delaware	2	0	0	1	1	‡	‡
District of Columbia	95	0	0	28	49	15	3
Florida	375	0	‡	145	170	49	11
Georgia	204	20	0	45	90	27	22
Hawaii	31	0	0	9	14	6	2
Idaho	43	0	0	14	20	7	2
Illinois	1,346	4	0	483	643	174	42
Indiana	313	0	0	82	161	62	8
Iowa	110	0	0	31	51	26	2
Kansas	159	0	1	49	72	36	2
Kentucky	121	0	0	30	62	26	3
Louisiana	214	0	3	51	127	32	1
Maine	41	0	0	15	15	10	1
Maryland	141	2	0	36	75	22	5
Massachusetts	476	0	0	114	280	75	7
Michigan	449	3	3	127	225	82	9
Minnesota	308	0	0	89	145	69	5
Mississippi	46	0	0	12	31	3	‡
Missouri	242	0	0	74	111	50	7
Montana	40	0	0	15	16	8	‡
Nebraska	131	0	0	38	56	34	3
Nevada	34	0	0	17	14	3	‡
New Hampshire	41	0	0	8	22	9	2
New Jersey	421	1	‡	127	217	67	9
New Mexico	49	0	0	18	18	4	9
New York	1,578	50	20	427	705	273	102
North Carolina	144	15	0	37	71	20	1
North Dakota	35	0	0	12	15	8	1
Ohio	668	2	‡	195	358	111	3
Oklahoma	292	18	0	80	113	76	4
Oregon	175	0	0	59	66	51	‡
Pennsylvania	1,165	17	‡	277	676	183	13
Rhode Island	51	0	0	14	26	11	0
South Carolina	72	0	‡	17	41	12	1
South Dakota	40	‡	0	14	16	9	‡
Tennessee	252	‡	‡	70	133	43	6
Texas	1,103	36	0	390	482	166	29
Utah	52	0	0	15	26	9	2
Vermont	22	0	1	7	9	5	1
Virginia	246	0	0	73	132	39	2
Washington	248	0	0	76	111	59	1
West Virginia	90	0	0	22	44	19	5
Wisconsin	199	0	0	50	108	35	7
Wyoming	32	0	0	6	18	8	1
Virgin Islands	2	0	0	‡	1	‡	0
D.C.—all*	161	0	0	43	88	24	6

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Includes Virgin Islands.

‡ Less than $500,000.

Note: Data may not add to totals because of rounding.

Table 8.—Status of applications for national bank charters, and charters issued; April 1-June 30, 1964

Applications carried over from March 31, 1964		94
	1—Conversion	
	93—Primary	
	94	
Applications received April 1 to June 30, 1964		115
	2—Conversions	
	113—Primary	
	115	
		209
Applications approved April 1 to June 30, 1964		53
	2—Conversions	
	51—Primary	
	53	
Applications rejected April 1 to June 30, 1964		48
	0—Conversions	
	48—Primary	
	48	
Applications abandoned April 1 to June 30, 1964		6
	0—Conversions	
	6—Primary	
	6	
Applications pending as of June 30, 1964		102
	1—Conversions	
	101—Primary	
	102	
		209
New national banks chartered April 1-June 30, 1964		58
	9—Conversions	
	49—Primary	
	58	

Table 9.—National bank charter applications, and charters issued,* by states, April 1-June 30, 1964; received, approved, rejected, abandoned, and pending as of June 30, 1964

State	Received‡	Approved*	Rejected	Abandoned	Pending June 30, 1964	Charters* Issued
United States †	209	53	48	6	102	58
Alabama	4	3	0	0	1	4
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	4	2	1	0	1	1
California	32	6	8	0	18	12
Colorado	15	3	5	0	7	4
Connecticut	3	1	1	0	1	1
Delaware	0	0	0	0	0	0
District of Columbia	1	0	0	0	1	0
Florida	29	3	6	2	18	6
Georgia	3	0	2	0	1	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	8	3	2	0	3	1
Indiana	1	1	0	0	0	0
Iowa	0	0	0	0	0	0
Kansas	1	0	1	0	0	1
Kentucky	0	0	0	0	0	0
Louisiana	0	0	0	0	0	2
Maine	0	0	0	0	0	0
Maryland	2	1	0	0	1	1
Massachusetts	1	1	0	0	0	0
Michigan	4	1	1	0	2	0
Minnesota	6	0	3	1	2	3
Mississippi	1	0	0	0	1	0
Missouri	8	2	1	1	4	2
Montana	3	1	0	0	2	0
Nebraska	2	1	0	0	1	0
Nevada	3	0	1	1	1	0
New Hampshire	1	1	0	0	0	0
New Jersey	7	4	1	0	2	2
New Mexico	3	1	0	0	2	1
New York	6	1	0	0	5	0
North Carolina	0	0	0	0	0	0
North Dakota	2	0	0	1	1	0
Ohio	3	1	0	0	2	1
Oklahoma	11	0	3	0	8	3
Oregon	1	0	0	0	1	0
Pennsylvania	1	0	0	0	1	0
Rhode Island	0	0	0	0	0	0
South Carolina	2	0	2	0	0	0
South Dakota	1	0	1	0	0	0
Tennessee	1	1	0	0	0	0
Texas	21	6	6	0	9	6
Utah	2	0	1	0	1	0
Vermont	0	0	0	0	0	0
Virginia	3	1	1	0	1	3
Washington	6	3	1	0	2	1
West Virginia	2	2	0	0	0	0
Wisconsin	1	0	0	0	1	2
Wyoming	4	3	0	0	1	1
Virgin Islands	0	0	0	0	0	0

* Includes conversions.
† Includes Virgin Islands.
‡ Includes applications pending as of March 31, 1964.

Table 10.—Insured commercial banks chartered,† by type of bank and state, 1963,‡ and January 1-June 30, 1964

State	Type of Bank	1963‡	1/1-6/30 1964
United States	N	*164	100
	SM	3	2
	IN	115	57
		*282	159
Alabama	N	2	4
	SM	1	0
	IN	1	3
		4	7
Alaska	N	0	0
	SM	0	0
	IN	0	0
		0	0
Arizona	N	0	0
	SM	0	0
	IN	2	2
		2	2
Arkansas	N	1	1
	SM	0	0
	IN	0	2
		1	3
California	N	12	18
	SM	0	0
	IN	18	4
		30	22
Colorado	N	15	6
	SM	1	0
	IN	2	0
		18	6
Connecticut	N	0	1
	SM	0	0
	IN	1	0
		1	1
Delaware	N	1	0
	SM	0	0
	IN	0	0
		1	0
District of Columbia	N	2	0
	SM	0	0
	IN	0	0
		2	0
Florida	N	26	15
	SM	1	0
	IN	15	10
		42	25
Georgia	N	2	0
	SM	0	0
	IN	4	2
		6	2
Hawaii	N	0	0
	SM	0	0
	IN	0	0
		0	0
Idaho	N	1	0
	SM	0	0
	IN	0	0
		1	0

Table 10.—(Continued)

State	Type of Bank	1963	1/1-6/30 1964
Illinois	N	2	1
	SM	0	0
	IN	10	10
		12	11
Indiana	N	0	0
	SM	0	0
	IN	1	0
		1	0
Iowa	N	4	1
	SM	0	0
	IN	1	0
		5	1
Kansas	N	0	2
	SM	0	0
	IN	1	0
		1	2
Kentucky	N	0	0
	SM	0	0
	IN	0	0
		0	0
Louisiana	N	* 0	3
	SM	0	0
	IN	2	3
		* 2	6
Maine	N	0	0
	SM	0	0
	IN	0	0
		0	0
Maryland	N	3	3
	SM	0	0
	IN	2	0
		5	3
Massachusetts	N	1	0
	SM	0	0
	IN	2	0
		3	0
Michigan	N	4	1
	SM	0	0
	IN	0	0
		4	1
Minnesota	N	8	2
	SM	0	0
	IN	6	3
		14	5
Mississippi	N	2	1
	SM	0	0
	IN	0	0
		2	1
Missouri	N	5	3
	SM	0	0
	IN	5	1
		10	4
Montana	N	1	0
	SM	0	0
	IN	0	1
		1	1

Table 10.—(Continued)

State	Type of Bank	1963	1/1-6/30 1964
Nebraska	N	1	0
	SM	0	0
	IN	3	1
		4	1
Nevada	N	0	0
	SM	0	1
	IN	0	0
		0	1
New Hampshire	N	1	0
	SM	0	0
	IN	1	0
		2	0
New Jersey	N	1	1
	SM	0	0
	IN	3	0
		4	1
New Mexico	N	1	2
	SM	0	0
	IN	0	0
		1	2
New York	N	1	1
	SM	0	0
	IN	0	0
		1	1
North Carolina	N	1	0
	SM	0	0
	IN	0	0
		1	0
North Dakota	N	1	1
	SM	0	1
	IN	0	1
		1	3
Ohio	N	1	1
	SM	0	0
	IN	1	0
		2	1
Oklahoma	N	8	4
	SM	0	0
	IN	1	2
		9	6
Oregon	N	1	0
	SM	0	0
	IN	1	2
		2	2
Pennsylvania	N	0	0
	SM	0	0
	IN	4	1
		4	1
Rhode Island	N	0	0
	SM	0	0
	IN	0	0
		0	0
South Carolina	N	1	0
	SM	0	0
	IN	2	0
		3	0

Table 10.—(Continued)

State	Type of Bank	1963	1/1-6/30 1964
South Dakota	N	1	0
	SM	0	0
	IN	0	0
		1	0
Tennessee	N	0	0
	SM	0	0
	IN	0	0
		0	0
Texas	N	34	17
	SM	0	0
	IN	16	3
		50	20
Utah	N	3	1
	SM	0	0
	IN	1	0
		4	1
Vermont	N	0	0
	SM	0	0
	IN	0	0
		0	0
Virginia	N	5	5
	SM	0	0
	IN	3	3
		8	8
Washington	N	1	2
	SM	0	0
	IN	3	2
		4	4
West Virginia	N	0	0
	SM	0	0
	IN	0	0
		0	0
Wisconsin	N	3	2
	SM	0	0
	IN	3	0
		6	2
Wyoming	N	7	1
	SM	0	0
	IN	0	1
		7	2
Virgin Islands	N	0	0
	SM	0	0
	IN	0	0
		0	0

N = National banks.

SM = State member banks.

IN = Nonmember insured state banks.

† For comparable data, 1953-59, see **National Banking Review**, 1, September 1963, Table 6, pp. 121-125; 1960-62, see **ibid.**, 1, March 1964, pp. 451-454. Data relating to national banks are on a charter basis; those for state member and nonmember insured banks are on an opened for business basis. There are minor revisions in some of the 1960-62 data. Each revised statistic is preceded by an asterisk (*). These data exclude conversions.

‡ End of year.

Table 11.—De novo branch applications of national banks, by states, April 1-June 30, 1964; received, approved, rejected, abandoned, and pending as of June 30, 1964

State	Received‡	Approved	Rejected	Abandoned	Pending June 30, 1964
United States†	362	192	19	9	142
Alabama	2	1	0	0	1
Alaska	1	0	0	0	1
Arizona	3	3	0	0	0
Arkansas	4	4	0	0	0
California	63	27	9	0	27
Colorado	0	0	0	0	0
Connecticut	4	3	0	0	1
Delaware	0	0	0	0	0
District of Columbia	5	3	0	0	2
Florida	0	0	0	0	0
Georgia	9	2	0	1	6
Hawaii	0	0	0	0	0
Idaho	0	0	0	0	0
Illinois	0	0	0	0	0
Indiana	5	4	0	0	1
Iowa	4	4	0	0	0
Kansas	0	0	0	0	0
Kentucky	1	0	0	0	1
Louisiana	1	1	0	0	0
Maine	0	0	0	0	0
Maryland	10	6	1	0	3
Massachusetts	9	5	0	0	4
Michigan	29	11	0	2	16
Minnesota	0	0	0	0	0
Mississippi	1	1	0	0	0
Missouri	1	1	0	0	0
Montana	0	0	0	0	0
Nebraska	1	0	0	0	1
Nevada	1	1	0	0	0
New Hampshire	2	2	0	0	0
New Jersey	11	7	0	0	4
New Mexico	3	2	0	0	1
New York	38	16	2	3	17
North Carolina	15	10	0	0	5
North Dakota	3	0	0	1	2
Ohio	29	21	0	0	8
Oklahoma	1	1	0	0	0
Oregon	8	6	1	0	1
Pennsylvania	34	13	2	2	17
Rhode Island	1	0	0	0	1
South Carolina	5	5	0	0	0
South Dakota	0	0	0	0	0
Tennessee	13	11	0	0	2
Texas	0	0	0	0	0
Utah	6	2	0	0	4
Vermont	1	1	0	0	0
Virginia	27	13	3	0	11
Washington	11	5	1	0	5
West Virginia	0	0	0	0	0
Wisconsin	0	0	0	0	0
Wyoming	0	0	0	0	0
Virgin Islands	0	0	0	0	0
D.C.—all*	6	4	0	0	2

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Includes Virgin Islands.

‡ Includes applications pending as of the end of March 31, 1964.

Table 12.—Branches of national banks; in operation March 31, 1964, opened for business, discontinued, or consolidated, April 1-June 30, 1964, and branches in operation June 30, 1964

State	Branches in operation Mar. 31, 1964	Branches opened for business April 1-June 30, 1964	Existing branches discontinued or consolidated April 1-June 30, 1964	Branches in operation June 30, 1964
United States†	7,363‡	199	9	7,553
Alabama	98‡	1	0	99
Alaska	38	0	0	38
Arizona	155	3	0	158
Arkansas	37	2	0	39
California	1,563	28	0	1,591
Colorado	0	0	0	0
Connecticut	135	4	0	139
Delaware	3	0	0	3
District of Columbia	41‡	1	0	42
Florida	0	0	0	0
Georgia	99‡	1	0	100
Hawaii	38	1	0	39
Idaho	84	2	0	86
Illinois	0	0	0	0
Indiana	225	4	0	229
Iowa	19	1	0	20
Kansas	24	0	0	24
Kentucky	103‡	1	0	104
Louisiana	118	2	1	119
Maine	61	0	0	61
Maryland	158‡	5	1	162
Massachusetts	279	8	0	287
Michigan	311‡	11	1	321
Minnesota	6	0	0	6
Mississippi	37	0	0	37
Missouri	12‡	1	0	13
Montana	0	0	0	0
Nebraska	17	0	1	16
Nevada	29	0	0	29
New Hampshire	5	5	0	10
New Jersey	354‡	15	2	367
New Mexico	40	4	0	44
New York	703‡	21	1	723
North Carolina	231‡	6	0	237
North Dakota	3	1	0	4
Ohio	431‡	7	1	437
Oklahoma	22	1	0	23
Oregon	191‡	4	0	195
Pennsylvania	648‡	21	0	669
Rhode Island	52	0	0	52
South Carolina	148‡	6	0	154
South Dakota	34	0	0	34
Tennessee	164‡	4	0	168
Texas	0	0	0	0
Utah	48	2	0	50
Vermont	25	1	1	25
Virginia	245	15	0	260
Washington	305	9	0	314
West Virginia	0	0	0	0
Wisconsin	22	1	0	23
Wyoming	0	0	0	0
Virgin Islands	2	0	0	2
D.C.—all*	73	1	0	74

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Revised.

Table 13.—Branches of national banks opened for business, by community size and size of bank, April 1—June 30, 1964

Category	April 1 - June 30, 1964
In cities with population:	
Less than 5,000	62
5,000 to 24,900	75
25,000 to 49,900	22
50,000 to 99,900	13
100,000 to 249,900	8
250,000 to 499,900	5
500,000 to 1,000,000	7
over 1,000,000	7
TOTAL	199
By banks with total resources (In millions of dollars)	
Less than $ 10.0	50
10.0 to 24.9	34
25.0 to 49.9	14
50.0 to 99.9	11
100.0 to 999.9	58
over 1,000	32
TOTAL	199

Table 14.—Mergers,* April 1—June 30, 1964

Applications carried over from March 31, 1964	21
Applications received April 1—June 30, 1964	23
Disposition of applications: April 1—June 30, 1964	
Approved	23
Rejected by stockholders	1
Withdrawn	1
Pending June 30, 1964	19
Transactions completed—Total	25
Mergers	17
Consolidations	1
Purchase of assets	7

The aggregate total of capital stock and capital accounts for certificates issued are as follows:

	Charter or purchasing bank	Merg., Consol. or selling bank	Combined
Capital stock	$ 99,102,930	$ 4,387,500	$103,150,880
Capital accounts	359,866,507	16,381,416	370,016,524

* Includes mergers, consolidations, and purchase and sale transactions where the emerging bank is a national bank.

BOOK REVIEWS

Full Employment or Stagnation. By J. M. Culbertson. New York: McGraw-Hill Book Company, 1964. Pp. ix + 252. $5.95.

In a forceful and provocative book Professor Culbertson vigorously attacks the problem of achieving full employment without either inflation, or chronic payments deficits. He writes for a wide audience, hopefully, for non-professional as well as professional students of economics. The distinctive quality of the book is to be found in the striking contrast Culbertson makes between the policies he advocates and those currently being implemented. He believes our economic problems grow worse because our policies have been wrong; and that this is the case because these policies have quite literally been formulated by "madmen in authority";[1] i.e., by people who act on the basis of discredited ways of thinking and who do not respond to reason.

The depth of the author's feeling is suggested by his title, which invokes a bad memory from the 1930's—stagnation—as the alternative to achieving full employment. Behind these alternatives, Culbertson sees an ideological struggle. He believes that the success, indeed the survival, of the United States, the free world, and "the liberal system" as we know it, depends on the outcome of a "contest of ideas" between reason on the one hand, and tradition and emotion on the other. (Chapters 1 and 16.) As for current monetary, debt management, and even fiscal policies, Culbertson finds emotion in the saddle and reason trampled underfoot.

Culbertson traces the current high level of unemployment and deficient level of Gross National Product to restrictive policies originating in 1959. From mid-1959 through mid-1960, the money supply (which the author defines as currency and demand deposits) declined; from mid-1959 to mid-1962, the money supply increased at a rate of only one-half of one percent a year. The average maturity of the Federal debt declined during most of the post-war period, but in mid-1960 it began to increase as longer term issues were floated under both the Eisenhower and Kennedy Administrations. As for fiscal policy, the large deficit incurred in the 1957-58 recession was rapidly reversed as Government expenditures were stabilized and the economic expansion increased tax revenues. The author notes, however, that after 1960 fiscal policy became more expansive. He states "Fiscal policy is not an active villain in the drama of continued economic slack despite the prevalent impression to the contrary." (P. 140.) Thus, according to Culbertson, monetary and fiscal policies brought on the recession of 1960, and monetary and debt management policies are responsible for the continuation of economic slack.

Of most importance to Culbertson, however, is the behavior of the money supply. He reasons that the "financial adjustment mechanism," i.e., the operation of well developed financial markets to transfer excess funds to where they can be utilized, "acts to limit fluctuations in total demands." However, "In a nation with rising population and progress in productivity, expenditures must increase steadily if the growing output is to be taken off the market without price and wage reductions. This can occur only if the money supply continually increases or if people work continually to reduce their cash ratios." Since changes in cash ratios are independent of economic growth requirements, there must be "just the right secular growth in the money supply"; i.e., "a proper monetary policy." (P. 42.)

To restore full employment, Culbertson advocates what he terms a "moderately expansive" monetary policy that would increase the money supply at an annual rate of 6 to 8 percent. When full employment is approached, he would reduce this rate of expansion to 2 to 5 percent. He would shift the Treasury from the long-term to the short-term market to increase the supply of liquid assets available to the economy, and when full employment is reached, stabilize the

[1] Culbertson does not explicitly use this Keynesian phrase to describe current policy makers, but it does aptly describe his criticism.

average maturity of the debt. He would, for the most part, maintain fiscal policy in reserve against any secular or cyclical weakness that is not overcome by monetary and debt management policies. Writing before the recent tax cut, he states that, "The most appropriate application of fiscal policy . . . would be explicitly temporary, politically neutral reduction in Federal taxes . . . in the range of $5 to $10 billion a year. . . ." (P. 237.) He characterizes a large tax reduction spread over several years and a continuation of recent monetary and debt management policies as "restrictive," "uncertain in its effects" and "not hopeful." (P. 236.)

To institute the kind of economic policy he advocates, he points out that balance of payments problems must be alleviated. To do this, he argues that the United States "should assume leadership in instituting a new international money." (P. 231.) While he does not believe the devaluation of the dollar is currently practicable, he maintains that the ultimate objective should be to develop an international system through which such a remedy would be available—a system that would provide "controlled adjustability of exchange rates." He supports a number of other proposals designed to alleviate the current payments deficit by detaching the United States from the "gold plus key currency" (dollar) payments system that currently exists. He is opposed to the gold standard toward which he feels traditionalist thinking is moving us and free-floating exchange rates which he believes "could involve costs even greater than those of the traditional gold standard." (P. 194.)

While he recognizes that an approach to full employment may produce inflationary tendencies via the cost-push route, he argues that we have really had very little inflation, if any at all, since 1948; "if the upward bias in the consumer price index during the period was 1 percent (per year, due to a failure to adjust the index for changes in the quality of consumer goods), the inflation is negligible." (Pp. 67-68, parenthetic material added.) He argues that whatever cost-push tendencies exist should be handled by more effective government policies to insure labor mobility, and the formulation of guidelines for non-inflationary wage increases; he would rely on antitrust, tarriff and tax policies, among others, to protect against excessive profit margins. The role of intellectual leadership, he maintains, is to mobilize public opinion and convert "warring groups" to the acceptance of "rules of combat that do not imperil the system." (P. 54.)

Culbertson's economic analysis and his prescription for full employment have considerable merit. His presentation of the international payments problem in chapters 13 and 14 is worthy of special mention for its careful development and its persuasive reminder as to why domestic economic policies should not be continuously subordinated to international policies.

Given the current state of economic knowledge, however, it is possible to take issue with some of his conclusions. For example, establishing a target rate of growth for the money supply (demand deposits plus currency) means that money management could be effectively disengaged at critical times from the control of interest rates, as well as total bank credit; the Federal Reserve can not dictate the public's propensity for time deposits. Just a few short years ago, the "bills only" policy led to many complaints from economists that the Federal Reserve was avoiding its responsibilities in not controlling interest rates more directly. Culbertson reverses these complaints by arguing that the Federal Reserve thinks of some level of interest rates as proper, and attempts to establish it. For the most part the Federal Reserve cannot exercise effective control over both the yield curve and the money supply (narrowly defined) at the same time. The basic question, still the subject of some controversy, is which type of control offers the best hope of regulating expenditures.

In addition, a 2 to 5 percent rate of increase in the money supply during periods of full employment provides an extremely large range of choice. It would have been helpful had Culbertson gone into more detail on how the appropriate rate should be chosen. The degree of uncertainty reflected in the width of the range suggests that other, unspecified variables (time deposits and other liquid assets, perhaps being among them) must also be important. But this is exactly the position taken by the Federal Reserve. Lacking a quantitative under-

standing of the relative importance and interconnections of such variables (and Culbertson does not fill this gap), different policy makers within the system tend to look at different things, and policy tends to boil down to "leaning against the wind." Unsatisfactory as this policy may be, with the uncertainty implicit in Culbertson's proposal the same tendency might easily exist.

Some may also question Culbertson's view of the relative importance of monetary and fiscal policy. There certainly have been swings in preference over the last four decades; but the issue hardly seems to have been settled.

Finally, many reasonable men may doubt that the kind of policies Culbertson advocates to combat "cost-push" inflation could effectively limit wage and price increases without entailing the exercise of government power that would undermine our current institutional arrangements. In any event, he does not consider the problems involved in any detail.

In a book written for a wide audience, the failure of the author to go into detail, to qualify his arguments and to consider alternative views is to be expected. The criticism above would be no more than simple disagreements with one important variant of current economic thought if Culbertson did not draw such a rigid line between reason and prejudice. By so doing, however, he is able to argue in a very direct manner that current policy makers are unreasonable. For if there is only one set of reasonable policies and these are not implemented, it clearly follows that those responsible *are* unreasonable; if they persistently ignore reason when it is presented to them, they must be prejudiced, or self-serving.

Culbertson believes that they are prejudiced—that there is in their thinking a systematic bias toward restriction and presumably stagnation. He criticizes their individual views in detail, and he traces the alleged bias to a system of thought he labels "traditionalist" or, in some forms the "banking school view." "Traditionalists," he argues, "fear . . . . . that prosperity is fundamentally unhealthy." (P. 167.) Their "customary posture" is "advocating policies that lead to deflation and large unemployment." (P. 5.) Those who adhere to the "banking school fallacy," do not understand the concept of money, but emphasize instead lending, interest rates and credit terms. They take the position that the central bank should regulate credit, not *money*. The standards of monetary policy are then expressed in terms of such concepts as "tight," "easy," "the quality of credit," etc. While superficially this point of view may seem reasonable, Culbertson states, "(i)f one wanted to subvert the market economy, he could scarcely do better than to . . . convert the central bankers to the banking school fallacy." (P. 119.) For he finds that such reasoning leads to the belief that "*monetary restriction causes economic expansion*" (p. 158), and that this belief reflects Federal Reserve thinking. "The Federal Reserve approach is a formula for a systematically destabilizing monetary policy. . . . The weaker the economy becomes, the more rapidly the Federal Reserve will reduce the money supply." (P. 152.) If Culbertson is correct both in his emphasis on money, and in his criticism of monetary policy, one can only wonder how we have avoided a major disaster over the last 15 years.

Culbertson finds "traditionalist" and "banking school" thinking pervading all the relevant policy areas. He notes that there is a remarkable resemblance between current policy in the United States and the unfortunate policies in England in the 1920's—the ones John Maynard Keynes attacked so forcefully. He states that "perhaps the defeat of economic traditionalism in the 1930's was only a temporary episode—its team was disqualified for a time in punishment for extravagant failures, but now resumes its usual control of the game." (P. 241.) In any event, he finds that "this fallacy is so ancient and tenacious that it makes the truth seem an impudent and radical intruder." (P. 119.) Finally, he argues for a more forceful "intellectual leadership" to restore "reason" to economic policy.

Culbertson thus raises a crucially important hypothesis: that there is a persistent distortion in the formulation of economic policy. Unfortunately, he does not attempt to test it systematically. The evidence he offers in support is limited, by and large, to a review of policy errors during the last few

years,[2] and to critical interpretations of what he himself considers to be vague statements by policy making officials.

Neither does Culbertson attempt a full explanation of the bias he believes exists. To say that it reflects emotion and tradition is merely to state again that it is a bias away from reason. To say that it reflects the "banking school view," is simply to identify the "scribbler(s) of a few years back" from whom the "madmen in authority . . . . . are distilling their frenzy . . . ." These answers merely raise further questions. Why has this particular point of view been so resistant to reason? Why do current policy makers adhere to "banking school" scribblers and not to others? Culbertson's thoughts on these questions are more or less casual.

The investigation of a systematic distortion in policy formulation is not traditionally within the field of economics. Yet Culbertson's failure to go further into the matter has a serious consequence with respect to one of his stated objectives. In Chapter 2 he states that he does not wish "to point a finger of guilt at the traditionalists and the policy makers; . . . . the sort of biases they have are doubtless inevitable." He quotes Adam Smith to the effect that, "They acted as their situations naturally directed, and they who have clamoured the loudest against them would, probably, not have acted better themselves." (P. 15.) However, he never does explain to the reader why these biases are inevitable. The most vigorous impression he leaves is that current policy makers have formulated public policy on the basis of ignorance, emotion, and blind adherence to a discredited way of thinking. He thus invites anger rather than understanding. The reader is sorely tempted to conclude that such men are *personally* guilty of producing our current economic difficulties.

This result is doubly unfortunate. For if the distortion Culbertson sees does exist and is inevitable, in the sense that it is related to the policy making role, only a full understanding of the forces behind the relationship can help in remedying the situation.

In summary then, this book can be recommended for its thoughtful analysis of current economic problems. It presents a policy program worthy of serious consideration. It argues, at times, with reason and style, that there is too much "traditional" thinking in our society today, that current policy makers are frequently influenced by out-dated remedies, and that the intellectual content of policy is often less than satisfactory. It raises, but to this reviewer's mind does not resolve, the interesting and important question of a bias in policy formulation.

However, one of the characteristics that makes this book so provocative—the brutal criticism of individual policy makers together with the implied accusation of personal guilt—also mars it seriously. The charges do not seem to be handled in a way Culbertson himself would advocate, i.e., in a manner, to use his own words, conforming "to the scientific spirit of our times."

BERNARD SHULL

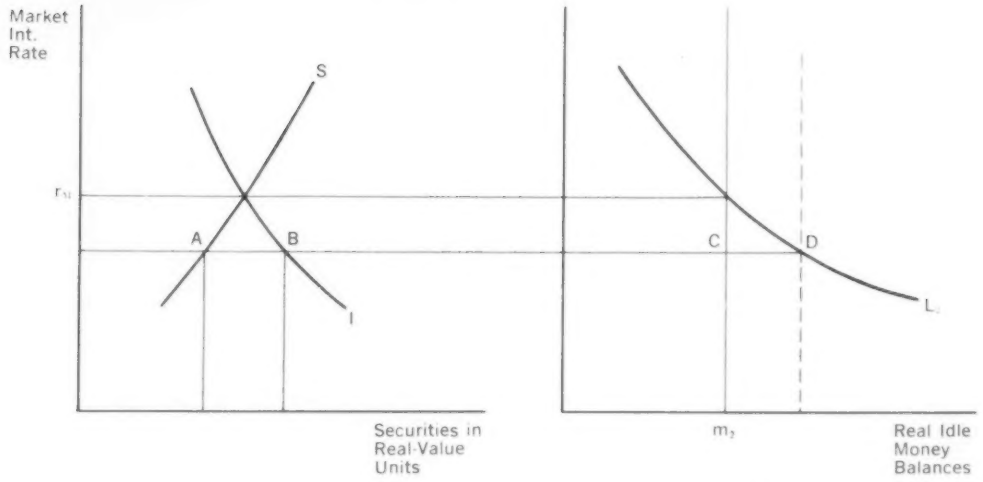
Money, Capital, and Prices. By GEORGE HORWICH. Homewood, Illinois: Richard D. Irwin, Inc., Pp. xiii + 553. $12.50.

This is a worthy book to usher in the monograph series of the Krannert Graduate School, Purdue University. Its brilliant yellow hue should blend nicely on book shelves with the buff and rust colors of other recent major monetary studies (Patinkin, Gurley-Shaw). In content and spirit, however, it probably belongs closer to Wicksell.

For most of its length it is not an easy book to read. Any theoretical book of this kind is inherently difficult. But an abundance of detailed diagrams, repeated manipulations of the equation of exchange and other relationships, qualified comparisons of newly introduced models with earlier ones—all these features make for arduous reading. For this reason the reader may become somewhat perplexed as to the main "message" of Horwich and long for a neat summation. A good starting point is the final chapter—"The Theory of Interest and Prices: A Restatement and a Critique," which illu-

[2] He does, however, discuss the 1929-33 contraction and finds that ". . . although monetary policy was certainly not the only cause of the Great Depression, it was *a sufficient cause* of *a* depression. Given what monetary policy did, continuation of prosperity was inconceivable." (P. 131.)

DIAGRAM 1



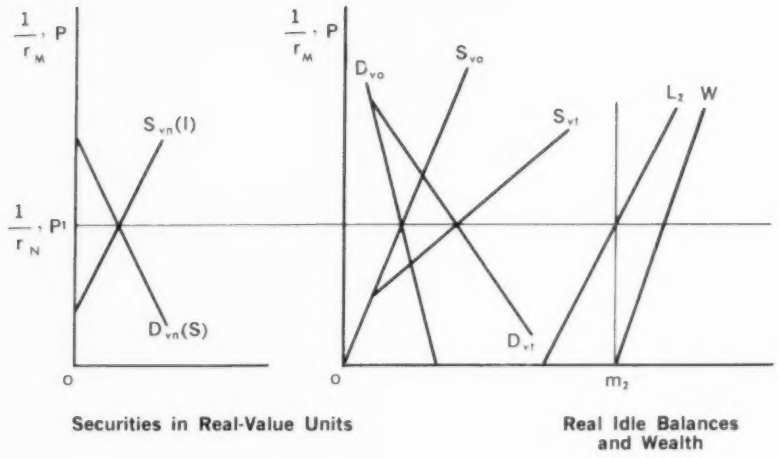
mines Horwich's contribution by relating it to the work of Patinkin, Metzler, Keynes and Pigou. The entire book is summarized in Chapter I and every chapter carries its own summary. For a working knowledge of Horwich's basic schema it will still be necessary to read Chapters II to IV. The reader whose appetite is whetted by these chapters will wish to go on to Chaps. VIII and IX where the basic analysis is generalized in many interesting directions. The remaining chapters which expand on the "real" side of the analysis and in addition develop a two-security model will probably be of less general interest. This would also apply to all of the appendixes with the possible exception of the appendix to Chapter X dealing with Hicks' famed integration of Keynes and the classics.

The book is a consistent (relentless) exercise in the stock-flow analysis of financial markets. Its objective is to demonstrate that the forces determining interest rates in the "output market" (saving and investment flows) can be reconciled with the forces determining interest rates in the existing assets market. Stock-flow analysis then is an attempt at integrating what historically have been independent theories of financial market behavior. Classical and neoclassical models are organized around saving and investment flows. The Keynesian analysis attempts to explain interest rates by focusing on the demand for a given stock of money. The basic Horwich framework consists of the following connected diagram.

The variables in this diagram are stated in real dollar value terms. The S and I curves represent dollar amounts of planned saving and investment in "output units," that is, in dollar values corrected for commodity prices. In the existing assets market the L_2 curve represents the demand for real idle money balances and the solid vertical line represents the stock of such balances. The vertical axis measures the market rate of interest (r_M) and also the rate of return on capital which is relevant to the planned investment curve.

What makes for length (and much geometry) is the careful exploration of alternative formulations of this analysis. Thus assuming that adding to idle balances by savers and drawing down idle balances by entrepreneurs are both zero, the intended saving curve is the curve of new demand for secu-

DIAGRAM 2



rities [1] and the intended investment curve is a supply curve of new securities. In such analysis securities in physical units are measured along the horizontal axis. The other side of the existing assets market is the supply and demand for existing securities. New securities and old securities can be aggregated to give the total demand and supply of securities. The type of security underlying these markets is an equity security paying a uniform amount of dividends. This allows for an ownership interest in capital which is not possible with a bond model (p. 20). The demand and supply curves have the conventional slopes because the vertical axis measures the reciprocal of the interest (dividend) yields or the real price of the security, that is, the dollar price deflated by commodity prices.

The most complex version of markets is produced by stating the previous curves in real-value units. This is done by multiplying demands and supplies by the real prices of securities. The analysis is worth reproducing because of its apparent uniqueness to Horwich and the extensive use made of it.[2] The left-hand diagram represents the new securities market. Both facets of the existing assets market are presented in the remaining figure—existing securities and real idle balances. The subscripts "vo" and "vt" stand for outstanding and total securities, respectively. The positive slope of the L_2 curve as compared with the more familiar negative slope results from replacing interest rates with their reciprocal on the vertical axis. A clear innovation is the wealth curve (W)—the summation of the stock of existing securities (S_{vo}) and holdings of real idle balances (m_2). Its significance is that, given shifts or rotations in the wealth curve, the demands for existing securities and real idle balances will shift or rotate sympathetically. A rotation in the W curve, rather than a shift, results from a substitution of securities for idle balances or vice versa, so that capital gains and losses are altered for different market price levels. The extent to which "clockwise" or "counterclockwise" rotations

[1] This is not the same as a demand for new securities since it is possible that intended saving may be allocated to old securities.

[2] Figure 2-13, p. 51, with dotted schedules for a second time period and primes omitted. For simplicity Horwich draws the relations as linear although the conditions for nonlinear functions are explored in Appendix A to Chapter II.

in the "wealth function" (to be distinguished from the "wealth effect" discussed below) play an independent role in the equilibrium adjustment process is an obscure aspect of Horwich's framework.

The diagrams shown depict a condition of equilibrium. For the output or new issues market this means that the Wicksellian natural rate of interest (r_N) and the market rate (r_M) are identical. In the existing assets market this same market rate must equalize the demand and the stock of idle balances and the stock and demand for existing securities.

Just what guarantees that everything will work out so neatly? In the static equilibrium situation illustrated in the diagrams the output market takes the lead and the existing asset market adjusts to the interest rate as determined in the output market. The mechanism of adjustment in the static case is the wealth effect—the effect on real idle balances resulting from a change in the general price level. Prices move to whatever level is necessary to bring real idle balances into equality with the demand for idle balances at the prevailing interest rate.

A dichotomization of the money supply into idle and active balances is a major trademark of the study. Without this dichotomizing the wealth effect disappears. A split in money balances causes the price level to change disproportionately with an increment in the money supply, thus causing a change in real idle balances. This is not true of a non-dichotomized supply.[3] To preserve the wealth effect then, we must assume that individual dollars can be successfully identified as active or idle. Horwich is uneasy about the reality of this assumption and this leads to some supplementary model-building with a non-dichotomized money supply. It is questionable whether he really succeeds in fusing these balances back together again. He retains separate demand functions for transactions and asset demands for money at the same time that these demands are said to be interdependent with every unit of money performing the transactions and asset functions simultaneously! The truth of the matter would seem to be that the separation of money balances into idle and active is operationally convenient but can only be done statistically.

We can fit the demand for money as a function of several variables, these variables serving to estimate the amounts held variously for different purposes, or we can estimate idle balances residually on the basis of annual transactions requirements and the velocity of money in a year when idle balances are assumed to be zero. The fiction of separate balances is of significance because a major quarrel of Horwich with Keynesian models is that income determines active balances in these models. Horwich claims on the other hand that higher active balances must precede changes in income (pp. 429-434). If active balances and income must be determined simultaneously (which is consistent with the Keynesian framework), this would undermine Horwich's position.[4]

The favorite external disturbance in Horwich's study is an open market operation. We shall describe a single block-purchase of securities by the central bank, remembering that many variations are considered by Horwich. Securities are purchased at a bid price above the market price (an interest yield below the market yield). Returning to our first diagram, this creates an excess supply of new securities (excess of intended I over intended S) equal to the horizontal AB distance, and an excess supply of old securities equal to the CD distance. The purchase of new securities (AB) adds an equal amount to active balances, the purchase of old securities increases idle balance holdings. Once the open-market operation ceases, on the basis of the depressed yield entrepreneurs (investors) continue to issue more new securities than savers wish to purchase. This edges the interest yield upwards. The effect of the S and I gap is called the transfer effect, inappropriately perhaps, because the corresponding transfer of idle money (which we would take to be this effect) is denied as the responsible agent

[3] The clearest discussion of this is found in footnotes 30 and 32, pp. 374-375, 378-379 in the form of numerical illustrations.

[4] For an excellent graphic picture of this framework, see Gardner Ackley, *Macroeconomic Theory*, New York: 1961, Figure 14–11, p. 374.

(p. 404). In every time interval the S and I gap is matched by equal reductions in the stock of idle balances, until finally the gaps are closed in both markets. The previously mentioned wealth effect is the second factor in the adjustment process. Given fixed output (a basic assumption of Horwich models), the activation of idle balances causes prices to increase. Real idle balances then decline for a second reason, contributing to higher yields in the existing assets market.

The asymmetry in the time-periods of stock-flow analysis would seem to lead to serious problems. Open market purchases take place over a given time interval in the output market, but instantaneously in the existing assets market. Why should the longer time period apply only to one market? This makes a difference, since holders of idle cash balances are capable of dishoarding varying amounts depending on the time interval. With this asymmetry, how do we reconcile an excess supply of new securities generated over a period of time with the instantaneous release of idle balances involved in their financing?

Horwich's adjustment process depends on the persistence of disequilibrium in the new issues market following the external disturbance. Once the open market purchase is completed, it is assumed that entrepreneurs continue to issue more securities than savers are willing to purchase. Why, as in the classical model, do we not have an instantaneous return to an equilibrium situation in the new issues market? The Horwich analysis must be founded on lags which are never made explicit. Horwich may have lost a valuable opportunity to introduce the question of lender discretion in credit transactions (the "availability of credit" doctrine). Such a discussion would have tied in with his later treatment of financial institutions. Commercial banks are introduced in Chapter VIII and an excellent treatment is given to financial intermediaries in Chapter IX. The investigation of lender discretion might have suggested some unexplored links between the new issues and existing asset markets. From the standpoint of would-be borrowers, assuming that funds cannot be obtained in the new issues market, they may sell off existing securities in order to secure the desired financing. From the standpoint of lenders, an increased demand for credit may lead to a similar dissaving for purposes of relending in the new issues market.

Assuming that disequilibrium conditions do persist in the new issues market after a disturbance, a third problem is the relationship between the gaps in the two markets during the adjustment. How can we be sure that the initial S and I gap (evidently determined by the new yield level following the open market operation) will be matched precisely by excess real idle balances? Taking the process of adjustment as a whole, what assurance is there that total excess offerings at progressively higher yields will be matched by an equal amount of excess idle balances? [8]

Besides the financial aspects of the adjustment process Horwich makes much of the real side effects. In Chapters V and VI we find an exhaustive treatment of capital investment under disequilibrium conditions. If we return to our first diagram we can distinguish four different situations. In the case of an inflationary adjustment process (open market purchase), at interest rates lower than equilibrium rates, "zero forced saving" describes the case where *ex post* investment is indicated by values on the saving schedule. (The proceeds of excess new securities are hoarded by entrepreneurs.) The polar case is "complete forced saving"—with *ex post* investment being measured along the I schedule. In contractionary (deflationary) adjustments resulting from an open market sale, for example, "zero forced investment" indicates *ex post* values falling along the I schedule above the intersection, with "complete forced investment" being identified along the S schedule. The excess of *ex post* investment over intended investment at higher than equilibrium yields is explained by increased holdings of idle balances, by savers having their counterpart in unintended investment. An extensive geom-

[8] If it is argued that the initial post open-market operation takes place at whatever yield brings about the needed matching, and further disequilibrium transactions may not be necessary, this does not obviate the need for a unique amount of idle balances and for unique slopes in the behavioral relations.

etry of growth curves is provided. The analysis seems sterile, however, because it refuses to consider the implications for economic growth of inevitable increases in output.

In his final chapter Horwich looks critically at some of the "great books" of monetary theory. They are uniformly taken to task for their lack of stock-flow analysis. Patinkin mistakenly maintains that the price level is indeterminate unless saving is in part a demand for cash balances. This is not so, Horwich points out, because the interest-rate effects of a change in saving (devoted solely to security purchases) will have the needed repercussions on the excess demand for money in the existing assets market. Patinkin's failure to distinguish between stocks and flows also means that the differential impacts of alternative disturbances cannot be distinguished in his model.

Keynes of the *Treatise* and *General Theory* is guilty of neglecting the role of saving and investment in interest determination. Although the liquidity preference analysis of the *General Theory* is its greatest theoretical contribution, Keynes failed to see that saving exceeding investment at full employment levels is due to the allocation of saving in part to idle balances instead of to security demand. The integrators of Keynes and the classics who wished to demonstrate the interdependence of interest, saving, investment and the demand and supply of money achieved their integration by the same failure to consider saving as in part a demand for additional cash balances. In keeping with this criticism, Horwich commits fatal surgery on the famous Hicksian synthesis (Appendix, Chapter X).

In a way, Horwich and Keynes are playing under different ground rules. Theories of real expenditure, income and employment are foreign to the Horwich analysis. In contrast, Keynes is attempting to elaborate a theory of income determination. Consistent with this, investment and saving are injections and leakages whose planned values determine equilibrium income levels. If Keynes exaggerates the magnitude of disturbances by ignoring the connecting link of financial flows, Horwich goes to the other extreme and ignores the possibilities of real income change.[6] Clearly what is needed is a broader version of the saving-investment process than that provided by either Keynes or Horwich. In such a framework leakages and injections as manifested in changes in active and idle balances will interact with real income changes. The impact of real income changes on saving and investment flows would operate through the mechanism of financial availability in addition to interest rates. We suspect too that the broader framework would have more chance of success if integrated with a flow analysis of *both* new issues and existing asset markets.

It is perhaps unfortunate that Horwich felt it necessary to conclude his work with a final curtsy to policy implications. It is true that the analysis deals extensively with open market operations and also fiscal policy (pp. 281ff.). But the narrow framework in which the analysis is carried on makes them "pure" disturbances without much relation to the real world. Horwich has written a book in the neoclassical mold and this alone would cast doubt on its policy implications. If Wicksell's analysis failed as a guide to policy in his own day, its present-day applicability should be that much more suspect. And yet Horwich still urges policymakers to be aware of the disequilibrium possibilities of the natural rate diverging from the market rate! (Pp. 449-451.) His final policy recommendation of price-level stabilization is reminiscent of an earlier chronology. The problems of identifying the natural rate led Wicksell to recommend the price level as a guide to the policymaker.[7] We need not detail the many objections that can be offered to such a monistic policy in an economy simultaneously plagued by unemployed resources, administered prices, creeping inflation, a disappointing rate of economic growth, and difficulties in the balance of payments.

The problem of reconciling "stock" and "flow" markets has been said to be the most

[6] It is not entirely correct to say that Horwich neglects income change. In the main, however, the discussion assumes such changes and is limited to exploring the effects on equilibrium of induced changes in planned saving (see pp. 312-313, and 431-432).

[7] See W. H. Steiner, *et al.*, *Money and Banking*, 4th ed., New York: 1958, pp. 452-453.

serious theoretical problem concerning interest rates.* Horwich has made a valiant effort but we are not sure that he has succeeded. In any case, we would have wished for a more extensive margin of cultivation and a less intensive one.

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The Demand for Liquid Assets: A Temporal Cross-Section Analysis. By EDGAR L. FEIGE. Englewood Cliffs, N. J.: Prentice Hall, Inc., 1964. Pp. xii + 91.

This monograph is based on a dissertation submitted by Feige to the University of Chicago and is one of six selected for publication in the fifth annual Doctoral Dissertation competition sponsored by the Ford Foundation. The analysis presented in this volume attempts to isolate, quantify, and test some of the substantive issues raised in the recent controversy as to whether monetary policy has been weakened by the growth of near monies in the form of intermediary claims. The objective of this volume is to develop some empirical evidence that will help either to accept or reject the policy implications that have been drawn from the growth of non-bank intermediaries; and Feige therefore proceeds by first reviewing some methodological and analytical points in monetary theory to justify the procedures that he uses.

The tremendous growth in near monies raises, once again, the methodological question as to the appropriate definition of money; in particular, whether, and to what extent, the liabilities of financial intermediaries should be included in the definition of money. The author finds that the prevailing practice varies greatly from those who define money narrowly as currency plus demand deposits, to those who, following the Radcliffe Report, use money interchangeably with a more general concept of liquidity which, though never defined, presumably includes all varieties of liquid assets.

Feige, using neoclassical demand theory, argues that it is legitimate to define money narrowly, providing that one takes explicit account of all the variables which may affect the demand for money so defined. Instead of *a priori* arguments to justify alternative definitions, his procedure is to investigate the demand function for a particular asset, focusing explicitly on cross-elasticity relations between this asset and the yields on closely related liquid assets. Thus, if the cross-elasticity between time deposits and demand deposits is small so that changes in the yield on time deposits have a negligible effect on demand deposits, it may be justifiable (assuming negligible income effects) to omit time deposits from the definition of money. In this analytical framework, it is possible to test empirically some of the hypotheses developed by Gurley and Shaw and other investigators about the effectiveness of monetary policy in a world of complex financial intermediation.

Feige maintains that those who conclude that the growth of near monies has weakened the effectiveness of monetary policy rest their case on a combination of the following substantive hypotheses:

1. The hypothesis that intermediary claims are close substitutes for money.
2. The hypothesis that intermediary claims have undergone qualitative changes over time which make them a closer substitute for the monetary asset.
3. The hypothesis that changes in the supply of money are neutralized, in part or in total, by induced changes in the demand for money.
4. The hypothesis that a tight money policy tends to defeat itself to the extent that it generates financial innovation which, by increasing the substitutability of liquid assets for money, reduces the demand for money; (4) may be viewed as an elaboration of (3).

Accordingly, his empirical investigation undertakes to test the following four propositions: that intermediary claims are close substitutes for money; that the substitution relationships are unstable; that the growth in near monies has reduced the stability of the parameters of the demand function for

* G. L. S. Shackle, "Recent Theories Concerning the Nature of Interest," *Economic Journal*, LXXX, June 1961, pp. 230-231.

money; that tight money induces financial innovation which reduces the demand for money.

Cross-sectional state data for the United States for the eleven year period 1949-1959 are used to derive demand functions for liquid assets. Each year provides a cross-sectional sample of 49 observations (the then 48 states plus the District of Columbia). This sample was selected because it enables the author to use variables in his statistical work that correspond to those given by his theoretical analysis and, in addition, exhibit sufficient variation to permit statistical inference. With these data Feige estimates demand functions for demand deposits, time deposits and savings and loan shares, and also tests the stability of the demand functions over time.

The coefficients in the estimated demand functions and the cross-elasticities indicate that demand deposits are not significantly affected by the yields on time deposits, savings and loan shares and mutual savings deposits. This suggests that intermediary claims are not particularly close substitutes for money. The author does point out, however, that because of data limitations he could not explicitly estimate the demand for currency; it is therefore not possible to rule out the hypothesis that intermediary claims are close substitutes for currency. The author notes that the coefficients do not vary much over time and describes some additional tests on pooled data in which he found that the demand functions for demand deposits, time deposits, and savings and loan shares "have exhibited remarkable stability in periods of monetary ease and in periods of monetary stringency." On this basis he concludes that his results do not support the view that the demand for money has become less stable, nor do they support the view that, because of induced financial innovation, demand and supply are interdependent. The author also discusses some tests on the coefficients in the estimated demand functions for 1951 and 1952, in order to test the extent to which changes in the quality of near monies affect the stability of the demand for money. (In 1950 the insurance coverage on savings and loan shares was increased to $10,000. This presumably raised the quality of these assets and made them a better substitute for demand deposits or currency.) These results suggest that changes in the quality of closely related liquid assets may have some effect on the parameters of the demand for money. On the basis of these tests, the author concludes the monograph with the following observation:

> the implication of the analysis is that the effectiveness of monetary policy has not been impaired as a result of financial intermediation, and the findings lend no support to the proposed policies which seek to extend monetary controls to non-bank financial intermediaries.

Feige deserves considerable credit for providing us with a very good analysis of a difficult problem. In tackling this problem he uses neoclassical demand theory to define the substitution relations rigorously and to set out the functional forms within this framework, and uses single equation least squares and restricted efficient estimation procedures to quantify these functions. His numerical estimates depend, of course, on the data he uses and some of the adjustments that he performs; and it is quite possible that a subsequent investigator with better data for a longer period may come up with numerical results that are at complete variance with Feige's results. But even if this should occur, it would not, in my opinion, detract from the basic contribution of this monograph—this is the formulation of the problem of near monies in an analytically rigorous framework suitable for econometric analysis.

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The Behavior of Income Shares: Selected Theoretical and Empirical Issues, Volume Twenty-seven of *Studies in Income and Wealth*. For the National Bureau of Economic Research. Princeton, New Jersey: Princeton University Press, 1964. Pp. 394. $8.00.

This volume contains seven papers presented at the Conference on the Behavior of Income Shares held in New York in April 1961. The papers represent a broad survey of current research on income distribution,

and a vast quantity of newly compiled empirical data is also presented.

Theories of income distribution may deal with the distribution of income by occupation, by size, by the income categories of the official personal income accounts, or by factor shares. Traditionally, the last topic—functional distribution—has received the most attention. The present volume is no exception. The first three papers in the volume, by Scitovsky, Lebergott and Solow, are all concerned with the problem of income shares received by wage earners and by all others (loosely lumped together as earnings on capital). Historically, these two income shares have remained relatively constant. Scitovsky found the explanation mostly in the macro-distribution theory propounded by Kaldor—the stability of the rate of return to capital and the stability of the capital-output ratio. Lebergott reduced the cost of capital goods to wage costs incurred in previous periods. In the long run, then, the price of capital goods must bear a constant long-term relation to that of labor. Solow focused on the nature of the production functions underlying the observed factor shares. Abstracting from the influence of changes in the structure of demand, he explained the nature of factor shares over time in terms of factor substitution in a way analogous to the familiar micro-theory of marginal productivity theory of income distribution.

Schultze's paper takes the reader through the problem of income shares in the short-run where their changes are shown to be an important stabilizer in business cycles. Elasticities of profits to outputs are computed to demonstrate the volatile nature of corporate profits. A paper by S. A. Goldberg and a supplement by F. H. Leacy presented for the first time a large set of income share data, both long-run and short-run, for Canada. Factor shares by industry were analyzed in a paper by Michael Gort, and an elaborate set of factor shares information by state and region prepared by George Borts from Census of Manufacturers and Statistics of Income was given in the last paper in the volume.

The volume reveals both the great need and the great difficulty for further research on the topic of income distribution. Many years have elapsed since the first attention was given to the observed constancy of income shares. Yet there is still little concensus on such fundamental issues as the actual presence of the alleged constancy and the meaning of "constancy." The arithmetic division of labor share and capital share remains an embarrassing point. Above all, little attempt has been made to distill capital into its more meaningful functional components. The continued infatuation of economists with functional distribution of income and their disregard for other types of distribution is therefore puzzling. In fact, functional distribution of income is concerned with what the producer pays for the various services that he purchases. The converse is what the owner of factors receives for the services he sells. The two are properly inseparable. The prevailing practice of separating functional distribution of income from size or occupation distribution of income—as implied throughout the present volume—appears to be quite unwarranted.

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Money and Stock Prices. By Beryl Wayne Sprinkel. Homewood, Illinois: Richard D. Irwin, 1964. Pp. 201.

Beryl W. Sprinkel has written a provocative book on stock prices. He combines two ingredients. One is the leading indicators approach to business cycles. The other is a belief in the money supply as a crucial determinant of economic activity in the form developed in recent years by Professor Milton Friedman. The end result of this fusion is a rather rigid relationship between money and stock prices.

Sprinkel starts out from the statistical fact that changes in the rate of growth in the money supply (defined as demand deposits and currency) and changes in stock prices both fairly consistently lead turning points of business cycles. However, the lead time for the money supply is greater than for stock prices. As a result, it is possible to use changes in the rate of growth in the money supply as a leading indicator of changes in stock prices as well as turning points of

business cycles. From an examination of the data it appears that decreases in the rate of growth of the money supply lead declines in stock prices by an average of 15 months, while increases in the rate of growth of the money supply lead increases in stock prices by an average of 2 months.

To give theoretical substance to this statistical relationship, Sprinkel relies on a variation of a theoretical mechanism used by Milton Friedman in developing the quantity theory of money. At the risk of oversimplification, the Sprinkel variation is the following. Assume that we are entering a recession period and that the Federal Reserve system acts to expand the money supply. This will upset the balance between the amount of money desired by economic units and the existing stock. In particular, economic units will have an excess of money and this will lead them to rearrange their stock of assets by exchanging cash for progressively less liquid assets. The impact on assets will be diffused, with the impact initially on fixed coupon securities, but then spreading successively to equities and to real assets.

Sprinkel elaborates very little upon this tantalizing theoretical mechanism, although it is central to his hypothesis and, if true, certainly would represent a pathbreaking contribution to macro-economics. Rather, he has decided to write a book oriented primarily toward the financial analyst and layman. He is, therefore, interested in his hypothesis as a means of developing "a new and practical technique for improving the art of investment timing of common stock purchases and sales."

Sprinkel very wisely recognizes that his relationship between the money supply and stock prices, even if correct, is not easy to apply in practice because of the erratic behavior of the statistical series on the rate of growth of the money supply. As a result, Sprinkel does not recommend a mechanical application of his relationship to stock market decisions, especially on the upturn where the lead time is very small. Rather, he recommends that decisions to buy or sell common stocks be based on "a feeling for conditions" informed by a knowledge of the tools of monetary policy and of business cycle indicators. For this reason, much of the book is taken up by a discussion of monetary policy and the leading indicators approach to business cycles. The exposition is highly pedagogical in tone and a good deal of substance is compressed into a relatively short space.

The reaction of the reader to Sprinkel's work will depend, in large part, upon his willingness to accept Sprinkel's approach, which is "to isolate a simple and ubiquitous explanation which is consistent with factual trends over a long period of time and in widely varying circumstances." Sprinkel avowedly ignores what many would term the complexity of forces at work in the stock market. Whether successful or not in developing a simple explanation, he has written a book that takes the fun out of the stock market. There are none of the sage observations of a Benjamin Graham or the confident recommendations of a Gerald M. Loeb.

I believe that the book would have been both more interesting and convincing if there were some attempt to put the hypothesis in the perspective of other stock market theories. By failing to deal, however briefly, with other theories, Sprinkel makes it difficult for the reader to abandon other approaches to the stock market and to accept what appears to be a very narrow and simple-minded approach.

Sprinkel's failure to treat other theories extends even to minor variations of his own "liquidity" hypothesis. Why, for example, after leaning so heavily on Milton Friedman's work, does he reject with so little explanation the broader money supply concept preferred by Friedman, *i.e.*, including time deposits at commercial banks? The failure to consider time deposits is a serious deficiency in a work that relies on the money supply as a sensitive leading indicator. Shifts between demand and time deposits may occur for such fortuitous reasons as changes in the interest rate ceiling on time deposits. Such shifts can significantly affect changes in the rate of growth in demand deposits and, hence, in the money supply as defined by Sprinkel. At a minimum, any evaluation of the signifiance of changes in the rate of growth in the money supply has to take into account the behavior of time deposits. And why does Sprinkel reject, even more summarily, liquid assets issued by financial intermediaries? After all, common stocks are, if

anything, a closer substitute to income producing assets than to money.

In explaining stock prices, Sprinkel is treading in an area where distinctions between flows and stocks are critical and where both need to be taken into account. Unfortunately, no attempt is made to discuss the possibility of shifts in preference within the very large existing stock of financial assets, and why such shifts should be overshadowed in their impact, at least on stock prices, by relatively small changes in the supply of money.

A basic problem, as I see it, is that Sprinkel fails to provide a portfolio theory that goes very far. Accepting for the moment his view that the autonomous impulses originate in the money supply, it is all very well to say that the resulting excess supply or demand of money leads to a readjustment of other assets, including common stocks, held by economic units. But this leaves open the question of the time pattern of this readjustment and how the *structure* of the prices (or yields) of various assets is determined. In particular, why should excess money go into stocks and push down common stock yields when economic conditions and corporate profits appear unfavorable? And if excess money does go into stocks, how far can we expect this to continue? Sprinkel tries to deal in several sentences with the first of these questions, but provides no satisfactory answer.

Sprinkel's theoretical explanation is hardly satisfactory if it cannot explain the much greater lead time between money and stock prices in the case of a decline than in the case of an increase. There is nothing in his explanation to account for the substantial difference in lead times between 15 months on the downturn and 2 months on the upturn. Is there an asymmetry in the portfolio response of economic units as between increases and decreases in the rate of change in the supply of money? Or are there other factors at work? I suspect that an exploration of the differences in lead times—which Sprinkel has not undertaken—would result in a more complicated view of the stock market.

I am tempted to conclude that Sprinkel has not made a strong theoretical case for his hypothesis. What he is left with is a statistical regularity that emerges from an *ex-post* analysis of business cycle data. Are there other such regularities that might not turn out to be as good? If so, what does it all mean other than that past statistical regularities can be culled *ex post* from the data?

Sprinkel would have been less vulnerable in this respect if he had tested his hypothesis against two types of alternative hypotheses of a cyclical character. One would be a null hypothesis based simply on projecting past stock price behavior into the future. The other would be a series of hypotheses based on leading indicators other than the rate of growth in the money supply. These might be rates of growth or diffusion indices. By failing to test out such alternative hypotheses (although he does carry out a number of what I believe are less relevant tests), Sprinkel has made himself vulnerable on a purely statistical level.

Despite my dissents, I do believe that this book is well worth the perusal of those with an interest in the subject. Its approach to the stock market is a challenging one and employs a degree of economic sophistication and rigor not often found in books on the stock market.

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